



**GARY R. HERBERT**  
Governor

**GREGORY S. BELL**  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

**MICHAEL R. STYLER**  
Executive Director

### Division of Oil, Gas and Mining

**JOHN R. BAZA**  
Division Director

September 26, 2013

IACX Energy LLC  
5400 LBJ Freeway, Ste 1070  
Dallas, TX 75240

Subject: Woodside Dome #2 Well, 333' FSL, 694' FEL, SE SE, Sec. 12, T. 19 South, R. 13 East, Emery County, Utah

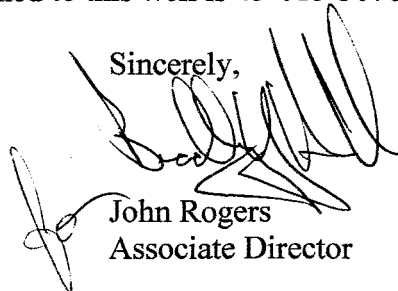
Ladies and Gentlemen:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-3. The expected producing formation or pool is the Coconino Sandstone Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-015-30766.

Sincerely,



John Rogers  
Associate Director

JR/bgh/js  
Enclosures

cc: Emery County Assessor  
Bureau of Land Management, Price Office

**Operator:** IACX Energy LLC  
**Well Name & Number** Woodside Dome #2  
**API Number:** 43-015-30766  
**Lease:** UTU-73059

**Location:** SE SE      **Sec.** 12      **T.** 19 South    **R.** 13 East

### **Conditions of Approval**

#### **1. General**

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### **2. Notification Requirements**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please let a voicemail message if not available)

OR

Submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dustin Doucet at (801) 538-5281 office  
(801) 733-0983 after office hours

#### **3. Reporting Requirements**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5<sup>th</sup> day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

#### **4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.**

#### **5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the “Board”). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.**

**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/05/2013

API NO. ASSIGNED: 43-015-30766

WELL NAME: WOODSIDE DOME #2

OPERATOR: IACX ENERGY LLC ( N4000 )

CONTACT: JEFF LEE

PHONE NUMBER: 972-960-3219

PROPOSED LOCATION:

SESE 12 190S 130E

SURFACE: 0333 FSL 0694 FEL

BOTTOM: 0333 FSL 0694 FEL

COUNTY: EMERY

LATITUDE: 39.17824 LONGITUDE: -110.40352

UTM SURF EASTINGS: 551520 NORTHINGS: 4336725

FIELD NAME: WILDCAT ( 1 )

INSPECT LOCATN BY: / /

| Tech Review | Initials | Date |
|-------------|----------|------|
| Engineering |          |      |
| Geology     |          |      |
| Surface     |          |      |

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-73059

SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: CCSD

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. UT8000572 )  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. PRICE RIVER )  
☒ RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )  
☒ Fee Surf Agreement (Y/N)  
☒ Intent to Commingle (Y/N)

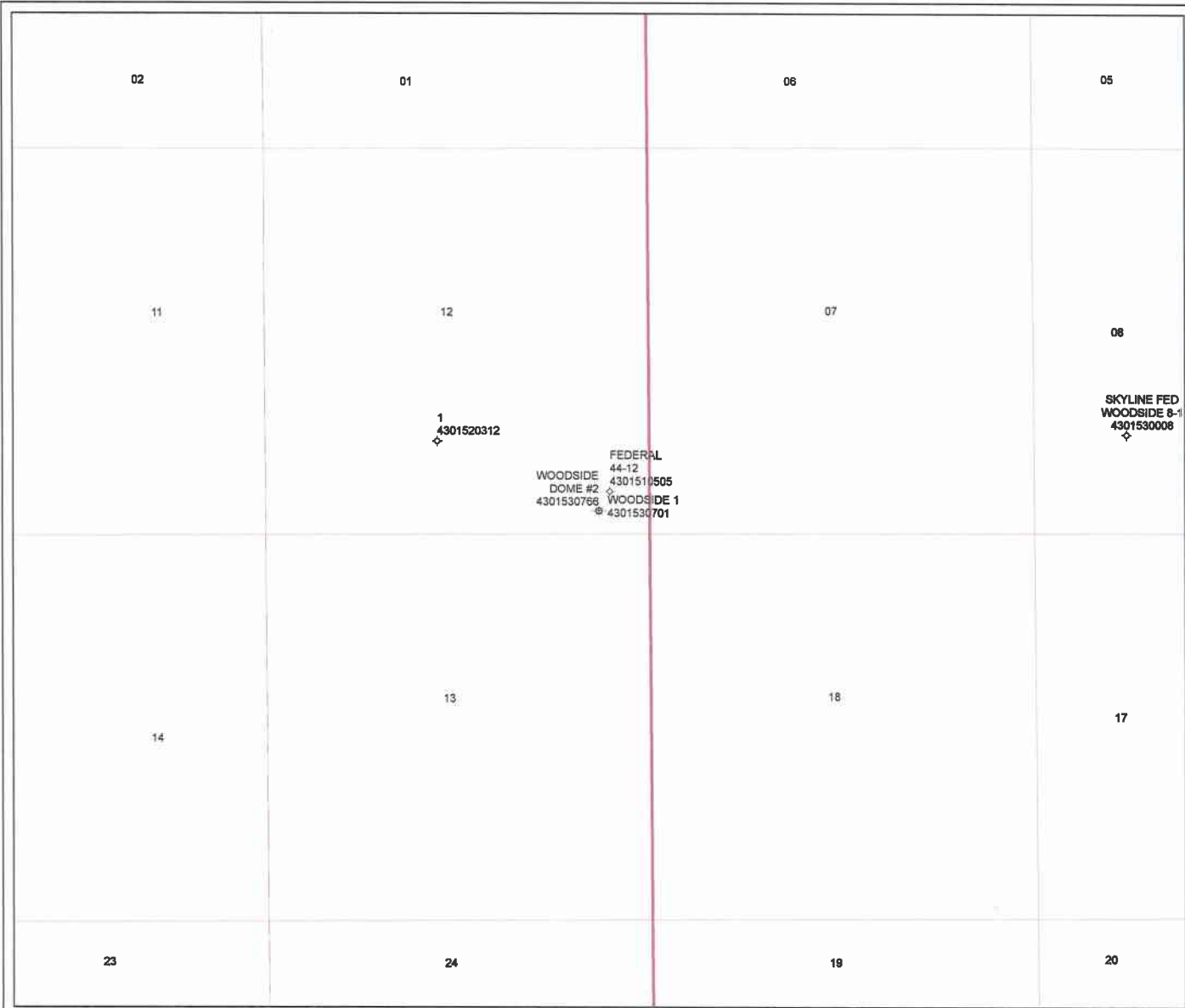
LOCATION AND SITING:

\_\_\_\_ R649-2-3.  
Unit: \_\_\_\_\_  
\_\_\_\_ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
☒ R649-3-3. Exception  
\_\_\_\_ Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_  
\_\_\_\_ R649-3-11. Directional Drill

COMMENTS: \_\_\_\_\_

STIPULATIONS: \_\_\_\_\_

1- Lease Approval  
2- Spacing Stip



**API Number: 4301530766**

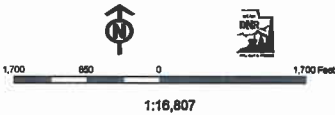
**Well Name: WOODSIDE DOME #2**

Township: T19.0S Range: R13.0E Section: 12 Meridian: S

Operator: IACX ENERGY LLC

Map Prepared: 9/18/2013  
Map Produced by Diana Mason

| Wells Query                        |  | Units        |
|------------------------------------|--|--------------|
| Status                             |  | STATUS       |
| APD - Approved Permit              |  | ACTIVE       |
| DRL - Spudded (Drilling Commenced) |  | EXPLORATORY  |
| GIW - Gas Injection                |  | GAS STORAGE  |
| GS - Gas Storage                   |  | NF PP OIL    |
| LOC - New Location                 |  | NF SECONDARY |
| OPB - Operation Suspended          |  | PI OIL       |
| PA - Plugged Abandoned             |  | PP GAS       |
| POW - Producing Gas Well           |  | PP GEOTHERM. |
| POW - Producing Oil Well           |  | PP OIL       |
| SGW - Shut-In Gas Well             |  | SECONDARY    |
| SGW - Shut-In Oil Well             |  | TERMINATED   |
| TA - Temp. Abandoned               |  |              |
| TW - Test Well                     |  |              |
| WCW - Water Disposal               |  |              |
| WIW - Water Injection Well         |  |              |
| WSW - Water Supply Well            |  |              |





**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐  
(highlight changes)

|  |  |   |  |   |                          |
|--|--|---|--|---|--------------------------|
| <b>APPLICATION FOR PERMIT TO DRILL</b>   |  |   |  | 6 MINERAL LEASE NO:<br><b>UTU-73059</b>                                     | 8 SURFACE:<br><b>FED</b> |
| 1A TYPE OF WORK: <b>DRILL</b> <input checked="" type="checkbox"/> <b>REENTER</b> <input type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/>   |  |   |  | 7 IF INDIAN, ALLOTTEE OR TRIBE NAME   |                          |
| B TYPE OF WELL:    OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER <u>helium</u> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>                                 |  |   |  | 8 UNIT or CA AGREEMENT NAME<br><b>Woodside Dome area</b>                    |                          |
| 2 NAME OF OPERATOR:<br><b>IACX Energy</b>  |  |   |  | 9 WELL NAME and NUMBER:<br><b>Woodside Dome #2 API pending</b>              |                          |
| 3 ADDRESS OF OPERATOR:<br><b>5400 LBJ F'way, #1070</b> CITY <b>Dallas</b> STATE <b>TX</b> ZIP <b>75240</b> PHONE NUMBER:<br><b>(972) 960-3219</b>  |  |   |  | 10 FIELD AND POOL, OR WILDCAT:<br><b>Wildcat</b>                            |                          |
| 4 LOCATION OF WELL (FOOTAGES)<br>AT SURFACE: <b>SESE 333' FLS and 694' FEL</b><br>AT PROPOSED PRODUCING ZONE: <b>same</b><br><div style="margin-left: 200px;"><b>551520X    39.178236</b><br/><b>43367254    -110.403523</b></div> |  |   |  | 11 QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:<br><b>SESE 12 19S 13E S</b> |                          |
| 14 DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE<br><b>28 miles from Green River, UT</b>  |  |   |  | 12 COUNTY:<br><b>Emery</b>  | 13 STATE:<br><b>UTAH</b> |
| 15 DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET)<br><b>333'</b>  |  | 16 NUMBER OF ACRES IN LEASE:<br><b>640</b>              |  | 17 NUMBER OF ACRES ASSIGNED TO THIS WELL:<br><b>40</b>                      |                          |
| 18 DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)<br><b>approximately 30'</b>   |  | 19 PROPOSED DEPTH:<br><b>3,369</b>                      |  | 20 BOND DESCRIPTION<br><b>UT8000572</b>                                     |                          |
| 21 ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.):<br><b>5448' GL</b>  |  | 22 APPROXIMATE DATE WORK WILL START:<br><b>9/1/2013</b> |  | 23 ESTIMATED DURATION:<br><b>45 days</b>                                    |                          |

| 24 PROPOSED CASING AND CEMENTING PROGRAM |   |     |       |               |   |     |                       |
|--|---|-----|-------|---------------|---|-----|-----------------------|
| SIZE OF HOLE                             | CASING SIZE, GRADE, AND WEIGHT PER FOOT |     |       | SETTING DEPTH | CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT |     |                       |
| 12.25"                                   | 9.625"                                  | K55 | 36 lb | 800           | Premium Lite                                    | 160 | 1.85 cuft/sk 12.7 ppg |
|  |   |     |       |               | Premium   | 170 | 1.16 cuft/sk 15.8 ppg |
| 8.75"                                    | 7"                                      | K55 | 23 lb | 3,266         | 50/50 poz                                       | 295 | 1.49 cuft/sk 13.4 ppg |
| 6.125"                                   | open hole                               |     |       | 3,369         |   |     |                       |
|  |   |     |       |               |   |     |                       |
|  |   |     |       |               |   |     |                       |
|  |   |     |       |               |   |     |                       |

|  |  |
|--|--|
| <b>25 ATTACHMENTS</b>  |  |
| VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:  |  |
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER<br><br><input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN<br><br><input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) Jeff Lee    TITLE Vice President, Projects and Construction  
 SIGNATURE *Jeff Lee*    DATE 8/8/13

(This space for State use only)

jefflee@iacc.com

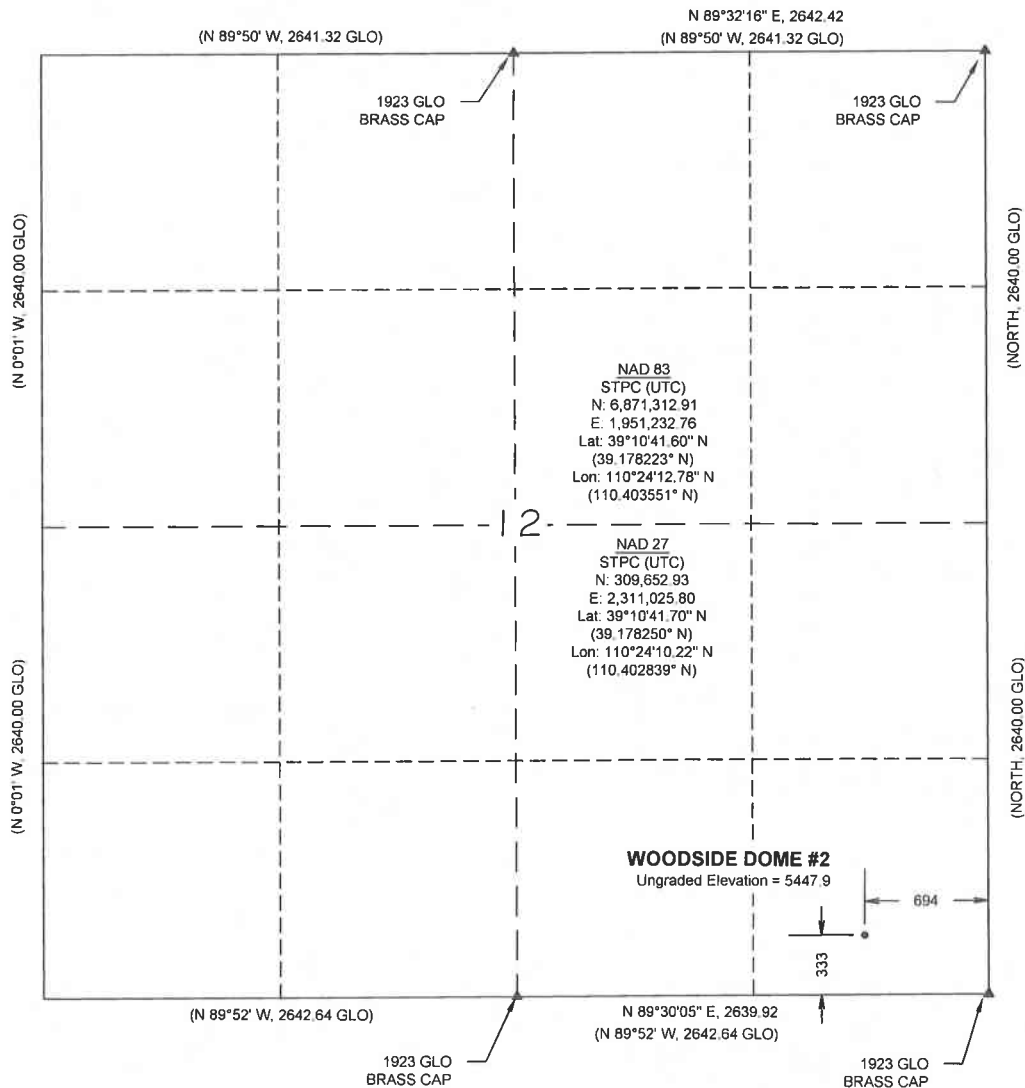
**Approved by the  
Utah Division of  
Oil, Gas and Mining**

API NUMBER ASSIGNED: 43-015-30766

APPROVAL:

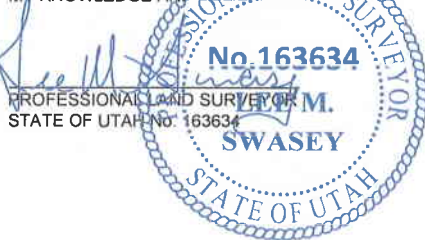
Date: 09-26-13  
By: *[Signature]*

# T. 19 S., R. 13 E., SLB&M



## CERTIFICATE OF SURVEYOR

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



## BASIS OF BEARINGS

Utah Coordinate System 1983 Central Zone grid bearings derived from GPS observations at NGS Control Station "WOOD"

## BASIS OF ELEVATIONS

NAVD 88 (geoid 09) derived from GPS observations at NGS Control Station "WOOD"

## LEGEND

- = PROPOSED WELL HEAD
- ▲ = FOUND SECTION CORNER



SCALE: 1" = 1000'

WOODSIDE DOME #2  
WELL PLAT

333' FSL, 694' FEL

SE1/4 SE1/4, SEC. 12, T.19 S., R.13 E., SLB&M  
EMERY COUNTY, UTAH



**IACX ENERGY**  
5400 LBJ Freeway, Suite 1070  
Dallas, TX 75240



Johansen & Tuttle Engineering  
P.O. Box 487, Castle Dale, UT 84513  
435-381-2523, JT@etv.net

|        |                               |       |          |
|--------|-------------------------------|-------|----------|
| DESIGN | JWJ 6-13                      | CHECK | LMS 6-13 |
| DRAWN  | LMS 6-13                      | CHECK | JLK 6-13 |
| SURVEY | JLK 6-13                      | CHECK | LMS 6-13 |
| FILE   | T:\Projects\11IACX\13GRC0001\ |       |          |

SHEET 1



August 5, 2013

Brad Hill  
State of Utah, Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Re: IACX Energy Woodside Dome #2 Helium Exploration Well APD

Dear Mr. Hill,

Please find enclosed an Application for Permit to Drill (APD) for IACX Energy's "Woodside Dome #2, a proposed helium exploration well located on the existing Woodside #1 well pad (API Well No. 43-015-30701-00-S1) on Lease UTU-73059 in the SE¼SE¼ of Section 12 (333' FSL and 694' FEL), Township 19 South, Range 13 East (Salt Lake Base & Meridian) in Emery County, Utah. The project area is located entirely on Bureau of Land Management (BLM)-administered lands. We are submitting this APD electronically via e-mail as a .pdf. If you require a hardcopy of this package, please let us know and we would be happy to send it to you.

IACX has been working with the BLM Price Field Office on the subject well and has submitted a BLM APD to that office. That APD has been determined to be complete and we are currently developing a brief environmental assessment (EA) that is tiered off the original 2006 Bill Barrett Corporation EA for Woodside #1 to address some of the changes in BLM management direction since completion of the 2008 Price Field Office resource management plan revision. If you have any questions regarding our BLM application, please contact Anita Jones via e-mail at [a65jones@blm.gov](mailto:a65jones@blm.gov) or via telephone at 435-636-3668.

Our goal is to drill Woodside Dome #2 in September of this year. With that in mind, please let us know as soon as possible if you require any additional information in order to process the enclosed APD. We look forward to working with you on this project.

Best regards,

A handwritten signature in black ink, appearing to read "Jeff", is written above the typed name.

Jeff Lee, Vice President  
Projects and Construction



August 5, 2013

Brad Hill  
State of Utah, Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: IACX Woodside Dome #2 Well Application for Permit to Drill  
Section 12 of T19S, R13E  
SESE 333' FSL and 694' FEL

Dear Mr. Hill,

Pursuant to the filing of an Application for Permit to Drill (APD) by IACX Energy, LLC ("IACX") for the above referenced well, we are hereby submitting this letter in accordance with Utah Administrative Code Oil & Gas Conservation Rule R649-3-3 pertaining to the "Exception to Location and Siting of Wells."

We are requesting an exception to the wells location and siting criteria identified in R649-3-2 because the proposed well is approximately 30 feet from an existing well and does not fall within 200 feet of the center of a 40-acre quarter-quarter section. The proposed well location is an outcome of an onsite visit, during which the Bureau of Land Management (BLM) Price Field Office encouraged IACX to site its proposed helium exploration well on an existing well pad (the 2007 Bill Barrett Corporation [BBC] Woodside #1, API Well No. 43-015-30701-00-S1) to avoid new surface disturbance and visual impacts associated with a new well pad and road development.

The BBC well was granted an exception on October 19, 2006 due to a specific request from the BLM to move the location a prescribed distance from a well that had been previously drilled and reclaimed (the Humble 44-12 well). Ownership of the BBC Woodside #1 well was transferred from Twin Bridges, LLC to IACX in May 2013 when IACX acquired Lease UTU-73059. It is important to note that, as described in the attached APD, IACX's proposed Woodside Dome #2 well would not be an oil or gas well. It would be a helium well drilled to the Kaibab formation at a depth of 3,330 feet, considerably above the depth of the adjacent Woodside #1 well, which is a natural gas exploratory well that extends down to the Cane Creek formation at a depth of 6,370 feet.

Attached to this request is a plat showing 1) the 400' X 400' area which an oil or gas well could be drilled in compliance with R649-3-2 or Board drilling unit order; 2) the location at which the applicant requests permission to drill; 3) the location of the existing BBC well (currently shut-in), and 4) the location of the abandoned Humble 44-12 well that was drilled in accordance with R649-3-2, diagonally offsetting the proposed exception. The plat also shows a 460'-radius circle around the proposed well site. All lands within this circle are BLM-administered lands. The circle overlaps Lease UTU-78219 to the south, which is also owned by IACX. IACX hereby certifies that it is the sole working interest owner within 460 feet of the entire well bore.

Based on the information provided, IACX requests that the proposed siting exception be granted pursuant to R649-3-3. If you should have any questions or need further information to approve this exception request please do not hesitate to contact me at 972-960-3219

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Lee", is written over a horizontal line.

Jeff Lee  
Vice-President

One Lincoln Center  
Projects and Construction  
5400 LBJ Freeway, Suite 1070

Dallas, Texas 75240  
www.iacx.com

972-960-3210 PHONE  
972-960-3215 FAX

**IACX Woodside Dome # 2**  
**Application for Permit to Drill**

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## Nine-Point Drilling Program

### Lease/Well Description

|  |
|--|
| <b>Operator:</b> IACX Energy   |
| <b>Lease:</b> UTU-73059  |
| <b>Existing BBC well:</b> API: 43-015-30701. The Utah Division of Oil, Gas & Mining has transferred the 43-015-30701 from Twin Bridges LLC to IACX Energy LLC via Sundry Notice in June 2013. (See Attachment A) |
| <b>Proposed IACX Woodside Dome #2 API:</b> pending   |
| <b>Surface location:</b> 333' FSL, 694' FEL, SESE Section 12-T19S-R13E, S.L.B.&M, Emery County, Utah   |

### 1. Geological Name of Surface Formation/ Estimated Formation Top

- a. The following table identifies the geologic markers and formation tops (depth in feet from surface) based on open hole logs from BBC's Woodside #1 well, which is located approximately 30 feet south of the proposed well. IACX's proposed Woodside Dome #2 well will be drilled to the bottom of the Kaibab formation, just above the top of the Coconino.

| Formation               | Estimated Formation Top |
|-------------------------|-------------------------|
| Summerville             | surface                 |
| Navajo                  | 1,004'                  |
| Kayenta                 | 1,411'                  |
| Wingate                 | 1538'                   |
| Chinle                  | 1973'                   |
| Shinarump               | 2198'                   |
| Moenkopi                | 2272'                   |
| Sinbad                  | 2949'                   |
| Kaibab                  | 3246'                   |
| Coconino                | 3370'                   |
| <b>Total well depth</b> | <b>3369'</b>            |

### 2. Estimated Depth of all Zones Anticipated to Have Fluid Occurrences (Oil, Gas, Water)

- a. All formations listed in the table above are expected to contain some water, but oil and gas are not expected. The target Kaibab formation contains nitrogen, carbon dioxide, methane, and helium gas.

### 3. Pressure Control Equipment

#### a. Blowout Preventer (BOP) Equipment

| Depth interval | BOP equipment                                      |
|----------------|--|
| 0 – 800'       | No pressure control required                       |
| 800' – TD      | 11" 3000 psi ram type BOP and 11" 3000 psi annular |

- i. Drilling spool to accommodate choke and kill lines with choke manifold rated at 3000 psi.

#### b. Ancillary Equipment

- i. Upper Kelly cock and lower Kelley cock will be installed while drilling.
- ii. Inside BOP or stab in valve will be available in open position on rig floor at all times.
- iii. Safety valves and subs to fit all string connections in use.

#### c. Choke Manifold

- i. Refer to Figure Drill-1 for detailed schematics for each hole section.

#### d. BOP Testing

- i. Initial 11" 3K BOP stack will be installed in casing head after setting 9.625" surface <sup>1</sup>casing.
- ii. The BLM and State of Utah DOGM will be notified 24 hours in advance of all BOP pressure tests.
- iii. Pressure tests will be conducted on the BOP stack using a test plug and independent test company after nipple up.
- iv. Subsequent BOP tests will be conducted a minimum of every 30 days. A new test will be conducted each time the stack is altered.
- v. All BOP and manifold tests will be in accordance with the requirements of Onshore Order No. 2.

#### e. BOP Test Pressures

| 9.625" BOP    |          |              |               |
|---------------|----------|--------------|---------------|
| Pressure Test | Ram Test | Hydrill Test | Manifold Test |
| High Pressure | 3000 psi | 1500 psi     | 3000 psi      |
| Low pressure  | 250 psi  | 250 psi      | 250 psi       |



#### 4. Casing Program

| Hole size | from    | to    | Size      | Weight | Grade | Thread | Condition |
|-----------|---------|-------|-----------|--------|-------|--------|-----------|
| 12.25"    | surface | 800'  | 9.625"    | 36 lb  | K55   | STC    | new       |
| 8.75"     | surface | 3266' | 7"        | 23 lb  | K55   | LTC    | new       |
| 6.125"    | 3266'   | 3369' | open hole |        |       |        |           |

- a. All casing strings will exceed the expected burst, collapse, and tension requirements for the relatively shallow depths associated with the proposed well. Safety factors are: Tension 2.0, Collapse 1.2, Burst 1.0.

#### 5. Cementing Program

|                       |   |
|-----------------------|---|
| 9.625" surface casing | 160 sx Premium Lite, wt = 12.7 ppg, yield = 1.85 cuft/sk lead slurry<br>170 sx Premium, wt = 15.8 ppg, yield = 1.16 cuft/sk tail slurry<br>100% excess circulated to surface.<br>Cement additives will include 2% CaCl and ¼ lb sack celloflake |
| 7" production casing  | 295 sx 50/50 poz, wt = 13.4 ppg, yield = 1.49 cuft/sk. 20% excess. TOC = 800'   |

#### 6. Drilling Fluid Program

##### a. Mud type and properties

| Interval     | Weight     | Viscosity | Fluid loss    | Remarks  |
|--------------|------------|-----------|---------------|--|
| 0 – 800'     | Air/mist   | na        | na            | Spud rig   |
| 800' – 3266' | 8.3 to 9.0 | 33 – 45   | 15 cc or less | Low solids non-dispersed (LSND, which is a freshwater gel) |
| 3266' to TD  | Air/mist   | na        | na            | Air drill and test   |

- i. The former BBC reserve pit location will be graded flat and a 70' by 50' area lined and contained within a 2'-high berm. Mud cuttings will be placed in this area until they can be tested for hydrocarbon. Enough barite will be kept onsite to weight mud sufficiently to contain any unexpected pressures.
- ii. Air drilling will use an anchored 6-inch blooie line with an igniter and dust suppression at the end of the blooie line where it enters the flare pit. The end of the blooie line will be at least 100 feet from the wellhead. Air compression equipment will be on the opposite side of the wellbore from the flare pit and at least 100 feet from the wellhead. The compression equipment will be equipped with an emergency kill switch, a pressure relief valve, and spark arresters on the motors, and be capable of 2400 CFM at 800 psi.

##### b. Monitoring

- i. Mud volume and flow will be monitored visually.

## 7. Formation Evaluation Program

|             |  |
|-------------|--|
| Cores       | None anticipated   |
| Testing     | Testing Kaibab zone while air drilling   |
| Sampling    | 30' samples from 800' to 3266' while mud drilling  |
| Surveys     | Continuous MWD from 800' to 3266' for collision avoidance with old well bore. Not to exceed 7 degrees from vertical. |
| Log program | DIL-GR-SP, FDC-CNL-GR-Caliper from 3230' to 800' in 8.75" open hole  |

## 8. Drilling Conditions

### a. Anticipated abnormal pressures or temperatures

- i. No abnormal pressures or temperatures or other hazards are anticipated.
- ii. Maximum bottom hole pressure equals approximately 1577 psig (pounds per square inch gauge)\* and maximum anticipated surface pressure equals approximately 836 psig.\*\* (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft)

\*Max mud wt x 0.052 x TD = A (Bottom hole pressure)

$$9 \times 0.052 \times 3369 = 1577 \text{ psig}$$

\*\*Maximum surface pressure = A - (0.22 x TD)

$$1577 - (0.22 \times 3369) = 836 \text{ psig}$$

### b. Hydrogen Sulfide (H<sub>2</sub>S)

- i. H<sub>2</sub>S was not encountered by Bill Barrett Corporation during installation of Woodside #1, thus no H<sub>2</sub>S monitoring is proposed for IACX Woodside Dome #2.

## 9. Other Information

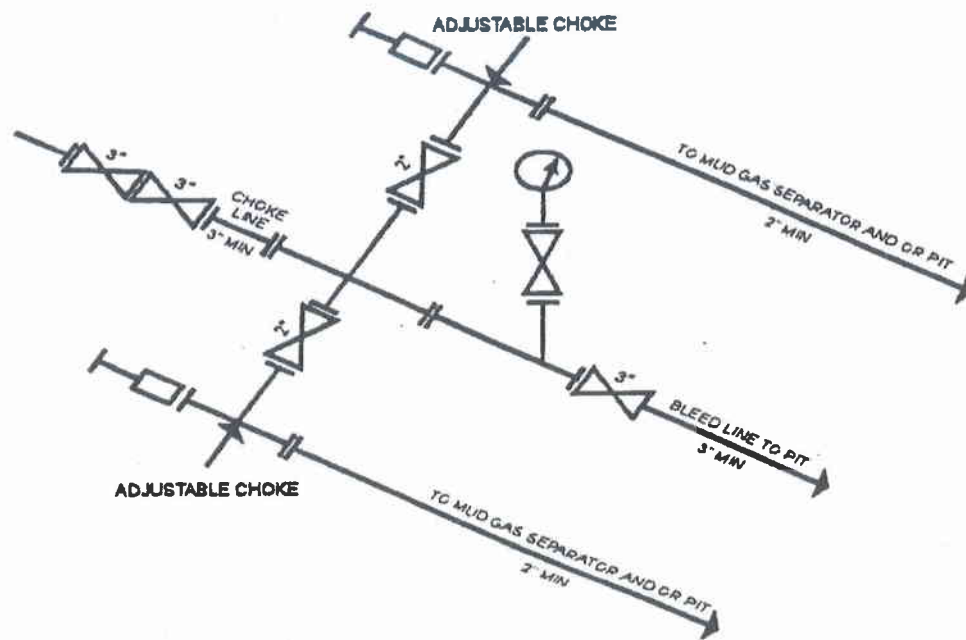
### a. Drilling Schedule

| Activity              | Date  |
|-----------------------|---|
| Location Construction | September 2013                                    |
| Spud                  | September 2013                                    |
| Total Duration        | 10 days drilling time,<br>10 days completion time |

### ***Drilling Plan Figures***

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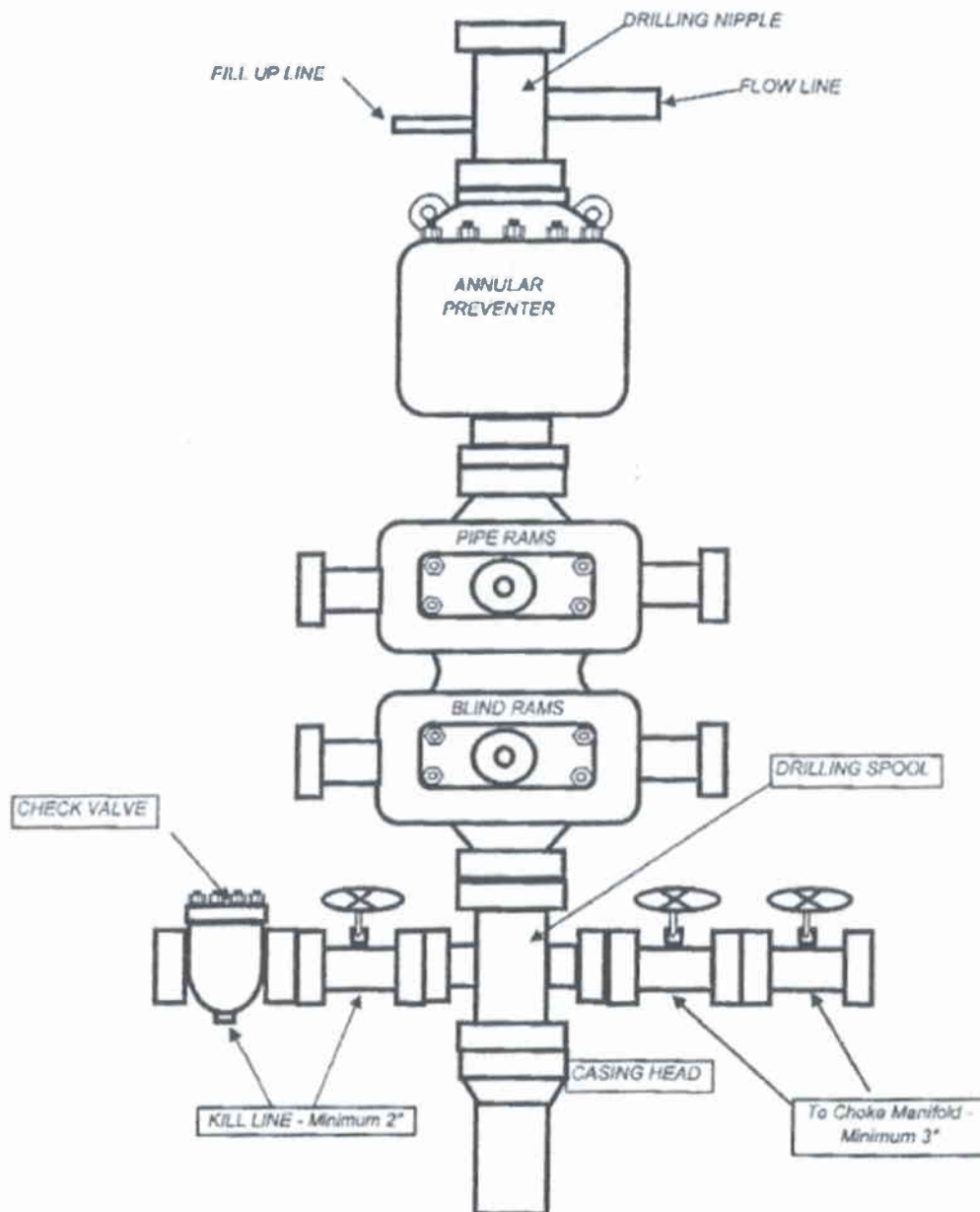
**Figure Drill-1. Schematic of the choke manifold with the types and location of chokes used on the manifold.**



**3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY**  
[54 FR 39528, Sept. 27, 1989]

Source: BLM and USFS 2007. Onshore Order #2.

Figure Drill-2. Schematic of the BOP.

TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER

Source: BBCWell#2 APD.

## 12-Point Surface Use Plan

|  |
|--|
| <b>Operator:</b> IACX Energy   |
| <b>Lease:</b> UTU-73059  |
| <b>Existing BBC well:</b> API: 43-015-30701. The Utah Division of Oil, Gas & Mining has transferred the 43-015-30701 from Twin Bridges LLC to IACX Energy LLC via Sundry Notice in June 2013. (See Attachment A) |
| <b>Proposed IACX Woodside Dome #2:</b> API pending   |
| <b>Surface location:</b> 333' FSL, 694' FEL, SESE Section 12-T19S-R13E, S.L.B.&M, Emery County, Utah   |

Note: The contractor will be provided with an approved copy of the Surface Use Plan of Operations before initiating construction.

### Applicable Maps and Figures (located at the end of this 12-Point Surface Use Plan)

- Figure SUPO-1, Project Location
- Figure SUPO-2, Project location (close up)
- Figure SUPO-3. Woodside Dome #2: Proposed Location (Sheet 6)
- Figure SUPO-4. Woodside Dome #2:: Topo (Sheet 7)
- Figure SUPO-5. Woodside Dome #2:, Photos of Staked Well Site (Sheet 2)
- Figure SUPO-6. Woodside Dome #2:, Well Pad- Location Layout (Sheet 3)
- Figure SUPO-7. Woodside Dome #2:, Well Pad- Cross Sections (Sheet 4)
- Figure SUPO-8. Woodside Dome #2:: Well Pad- Reclamation Layout (Sheet 5)

### 1. Existing Roads

- a. **Existing Access to the Proposed Location.** From the existing highway 6/191, well location access is proposed utilizing Emery County road (CR) 401 (Green River Cutoff Road), which trends generally southwest for approximately 7 miles. The proposed access route then utilizes an existing unnamed road, which is accessed through a gate located in the S/2 Section of 12-T-19S-R-13E. The well access road is approximately 0.4 miles in length. **Figure SUPO-1** and **Figure SUPO-2** depict general access to the proposed location via C.R #401. **Figure SUPO-3** identifies the unnamed access road.
- b. **Location of Proposed Well to nearest Town or Other Locatable Point.** The well will be drilled from an existing well pad. The proposed well site is located approximately 28 miles northwest of the town of Green River, Utah. Maps reflecting directions to the proposed well site and existing access roads are included (see **Figures SUPO- 1 and SUPO-2**).
- c. **Existing Road Maintenance or Improvement Plan.**
  - i. The existing unnamed well access road shall be repaired as necessary to accommodate the drilling rig and other vehicles and equipment required for well installation. Repairs will consist of re-grading to remove erosion rills and will not extend outside of the existing ROW. A road design plan

is not anticipated at this time. BLM approval to repair the existing road to the proposed well site is requested with this application.

- (a) All road repairs will meet standards appropriate to the anticipated use and will be in accordance with BLM Manual, Section 9113, (Roads) Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, Fourth Edition (Gold Book; BLM and USFS 2007).
- (b) Surface disturbing activities will not be conducted during periods of frozen or saturated soils when watershed damage or excessive rutting is likely to occur.
- (c) Road repairs will include re-grading and outsloping the existing access road and creating/restoring rolling dips designed to ensure that runoff flows to and off the outer edge of the roadway.
- (d) No new turnouts are proposed since the access road as adequate site distance in all directions.
- (e) No additional gates or cattle guards are anticipated at this time.
- (f) Due to the limited traffic anticipated during drilling of Woodside Dome #2 and no need for year-round access, no aggregate or other armoring materials will be used to surface the access road.
- (g) During construction, emissions of particulate matter from road repairs should be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on the access road should it present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
- (h) Surface disturbance and vehicular travel will be limited to the approved location access road.
- (i) All existing roads will be maintained and kept in good repair during all phases of the project.
- (j) Vehicles will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Maximum design speed on the well access road will not exceed 25 miles per hour.

## **2. New or Reconstructed Access Roads**

- a. Existing roads will be used to access the well pad. No new access roads will be needed for this project.

### 3. Location of Existing Wells

- a. The locations of all existing wells within a one (1) mile radius of the proposed location are identified on **Figure SUPO-4**.

| Well Type                   | Count w/in One Mile |
|-----------------------------|---------------------|
| water wells                 | 0                   |
| disposal wells              | 0                   |
| producing wells             | 0                   |
| shut in wells               | 1                   |
| abandoned wells             | 2                   |
| temporarily abandoned wells | 0                   |

### 4. Location of Existing and/or Proposed Production Facilities

- a. No facilities are requested. There are no existing production facilities within a one (1) mile radius of the proposed location.

### 5. Location and Type of Water Supply

- a. Water for rig use and dust suppression will be supplied by Nelco Contractors, which holds a valid existing water use agreement with the Price River Water Improvement District.
- b. Figure 3 indicates that there are no perennial water bodies or water wells in the vicinity of the proposed project. All water required for drilling and dust suppression will be obtained offsite.

### 6. Source of Construction Materials

- a. Based on the attached location plats, the pad design is balanced with regard to cut/fill and no additional material is expected to be required for the primary construction of the location.
- b. The use of materials will conform to 43 CFR 3610.2-3.
- c. No construction materials will be removed from BLM lands. If any gravel is used, it will be obtained from a state-approved gravel pit.

### 7. Method for Handling Waste

- a. **Drilling Fluid and Cuttings:**
- i. No reserve pit will be constructed for the proposed Woodside Dome #2. All drilling operations will utilize a closed loop system to manage solids in the drilling fluid system.
- ii. The cuttings will be stored on location in piles. The cuttings area will be lined and bermed as described in the Drilling Plan, above.



- iii. Upon completion of drilling, the cuttings will be tested for hydrocarbons and further processed as necessary to meet standards for burial on site or for other BLM-approved uses such as media for road surfacing and growing media for reclamation.
  - iv. Any salt or chemicals, which are an integral part of the drilling system, will be disposed of in the same manner as the drilling fluid. Any spills of oil, gas, saltwater or other produced fluids will be cleaned up and removed. Produced water is not anticipated. However, if extra water is encountered it will be controlled by weighting the mud with barite or contained in a tank and hauled offsite for disposal in an approved location.
- b. Trash.** Trash containers will be located on well sites during well pad construction, drilling operations, and site restoration. Garbage, trash, and other non-hazardous waste material will be collected in a portable, self-contained, fully enclosed trash cage during operations. Trash will not be burned on location. The collected material will be hauled to an approved landfill.
- c. Sewage.** Portable toilets will be located on well sites during well pad construction, drilling operations, and site restoration. Toilet holding tanks will be pumped bi-weekly or as needed and their contents disposed of at a municipal sewage treatment facility in accordance with applicable rules and regulations regarding sewage treatment and disposal.
- d. Hazardous Materials / Chemicals**
- i. Hazardous waste will not be generated in association with drilling the proposed wells. Most wastes that will be generated at the project location are excluded from regulation by the Resource Conservation and Recovery Act (RCRA) under the exploration and production exemption in Subtitle C [40 CFR 261.4(b)(5)] and are considered solid wastes. Exempt wastes include produced water, production fluids such as drilling mud or well stimulation flowback fluids, and soils affected by spills of these fluids.
  - ii. Chemicals meeting the criteria for being an acutely hazardous material/substance or meeting the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used. No chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) will be used, produced, stored, transported, or disposed of annually during the drilling, completion, or operation of the well. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of while producing any well.
  - iii. Some of the chemicals that may be used and stored onsite contain constituents that are hazardous. These include some greases or lubricants, solvents, acids, and herbicides, among others. These materials will be temporarily kept in limited quantities on well pads for short periods of time. Material Safety Data Sheets will be maintained by the IACX or its contractors for all materials used. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of the materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171– 180.

DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

- iv. All supplemental chemicals used in the makeup of drilling fluids will be stored in containers and protected from breakage and/or spillage. Chemical inventory not used at the completion of drilling operations will be returned to the appropriate vendor.
- v. Any spilled or leaked oil, produced water or treatment chemicals will be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.

## **8. Ancillary Facilities**

- a. None.

## **9. Well Site Layout**

- a. The well will be properly identified in accordance with 43 CFR 3152.6.
- b. This well site location will be contained within the original area disturbed when the BBC well 43-015-30701 was drilled. Construction control stakes for slope and grade will be used to ensure the actual construction is within the approved area.
- c. **Figure SUPO-5** provides photographs of the staked location.
- d. Rig layout and cross section diagrams are provided as **Figure SUPO- 6** and **Figure SUPO-7**.
- e. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized to minimize erosion and stabilize disturbed soils.
- f. Construction and surface disturbing activities will not be conducted during periods of frozen or saturated soils when watershed damage or excessive rutting is likely to occur.
- g. All surface disturbing activities will be supervised by a qualified, company representative who is aware of the terms and conditions of the APS and specified in the approved plan.
- f. All cut and fill slopes will be such that stability can be maintained for the life of the project.
- g. Drill pads and facility sites will be designed to prevent overland flow of water from entering or leaving the site. Storm water collected on disturbed sites will be prevented from flowing off the site and the pad is to be sloped to provide for zero runoff. The drill pad shall be designed to disperse diverted overland flow and to regulate flow velocity so as to prevent or minimize erosion. Well pad diversion outlets shall be equipped with rock energy brakes and gravel-bedded dispersion fans.
- h. The first 6 inches of topsoil or maximum available up to 12 inches will be removed from the previously reclaimed reserve pit for Bill Barrett Corporation's Woodside #1 well and will be windrowed (i.e., stockpiled/accumulated) along the uphill edge of the location in such a way as to prevent soil loss and contamination. Topsoil will be clearly segregated from excess spoil material.

Any topsoil stockpiled for one year or longer will be signed and stabilized in accordance with a BLM approved reclamation/revegetation plan. **Figure 6** identifies the location of the separate spoil piles and topsoil stockpiles. This area will be graded at a 1% slope (as per **Figure SUPO-7**), lined, and used for the cuttings drying area and as a working area for the flare pit.

- i. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
- j. The following equipment shall be in place and operations during air/gas drilling:
  - Properly lubricated and maintained rotating head
  - Spark arresters on engines or water cooled exhaust
  - Blooie line discharge 100 feet from well bore and securely anchored
  - Straight run on blooie line unless otherwise approved
  - Deduster equipment
  - All cuttings and circulating medium shall be directed into a reserve or blooie pit
  - Float valve above bit
  - Automatic igniter or continuous pilot light on the blooie line
  - Compressors located in the opposite direction from the blooie line a minimum of 100 feet from the well bore
  - Mud circulating equipment, water, and mud materials (does not have to be premixed) sufficient to maintain the capacity of the hole and circulating tanks or pits
- k. The flare pit will be located at least 100 feet from the wellhead and from the existing BBC well.
- l. During construction, emissions of particulate matter from well pad construction will be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on that the access road should it present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.

## 10. Plans for Surface Reclamation

- a. Because the proposed well location is on the existing well pad for Well 43-015-30701 (Woodside #1) and utilizes the same access road, this APD proposes to incorporate the reclamation actions contained in the Conditions of Approval (COAs) attached to Approved Permit to Drill for Well 43-015-30701 (Environmental Assessment UT-070-2006-55) related to surface use reclamation. Attachment A includes all relevant Surface Use COAs; COAs pertaining to production, pipelines, or production facilities are not included in this list. Some of these COAs have been revised slightly to make them more applicable to the exploratory nature of this project or to incorporate best available information. COA revisions are underlined and italicized.
- b. The Green River District Office Reclamation Guidelines applies to all surface disturbing activities within the Price FO. The following reclamation actions are consistent with those listed in the

Reclamation Guidelines. Attachment B contains the Green River District Office Reclamation Guidelines.

- c. **Producing Well.** Site reclamation for a producing well will be accomplished for portions of the site not required for the continued operation of the well as soon as possible following well completion. Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds. **Figure SUPO- 8** identifies the areas to be recontoured and reseeded.
  - i. The cut and fill slopes and all other disturbed areas not needed for the production operation will be top-soiled and revegetated.
  - ii. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify unneeded portions of the drilling platform on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
  - iii. The stockpiled topsoil will be evenly distributed over the disturbed area and a seedbed prepared by disking to a depth of 4-to-6 inches following the contour.
  - iv. The site will be seeded and/or planted as prescribed by the BLM. The BLM recommended seed mix will be detailed within their approval documents.
  - v. Any mulch utilized for reclamation will be certified weed-free.
  - vi. The operator will control noxious weeds along access road use authorizations, pipeline route authorizations, well sites or other applicable facilities by spraying or mechanical removal. A list of noxious weeds may be obtained from the BLM or the appropriate county extension office. On BLM-administered land it is required that a Pesticide Use Proposal be submitted and approved prior to the application of herbicides, pesticides or possibly hazardous chemicals.
- d. **Dry Hole.** All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc. will be expediently reclaimed and reseeded in accordance with the reclamation plan and any pertinent site-specific COAs.

## 11. Surface Ownership

- a. Surface ownership - Federal, Bureau of Land Management.
- b. Mineral Ownership- Federal, Bureau of Land Management.

## 12. Other Information

- a. Because the proposed well location is on the existing well pad for Well 43-015-30701 (Woodside #1) and utilizes the same access road, the Applicant proposes to commit to all relevant Conditions of Approval (COAs) for the Approved Permit to Drill for Well 43-015-30701 (Environmental Assessment UT-070-2006-55) ; i.e., those COAs related to road improvement, drilling, and reclamation activities. Attachment 2 includes all relevant COAs; COAs pertaining to production are not included in this list.

- b. Montgomery Archeological Consultants conducted two Class III archeological surveys on August 3, 2006 & September 14, 2006. A copy of the report was submitted to the appropriate agencies by Montgomery Archeological Consultants in support of the APD for Well 43-015-30701.
- c. No federally listed threatened or endangered animals are known to occur in the vicinity of the proposed project area. Two federally listed plants, the San Rafael Cactus (*Pediocactus despainii*) and Jones Cycladenia (*Cycladenia humilis* var. *jonesii*) and a BLM-listed sensitive plant species, the psoralea globemallow (*Sphaeralcea psoraloides*) have potential to occur in the area. In consultation with the BLM, surveys for these species were completed by AECOM botanists in April and May of 2013. No San Rafael cactus or Jones Cycladenia were observed during these survey efforts. Several individuals of psoralea globemallow were observed in the survey area but none that would be affected by the proposed project.
- d. Existing Ground level (GL) elevation of 5448' recorded on the certified plat and APD form was obtained from a survey conducted by Johansen and Tuttle Engineering on June 12, 2013.

### ***Surface Use Maps and Figures***

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Figure SUPO-1

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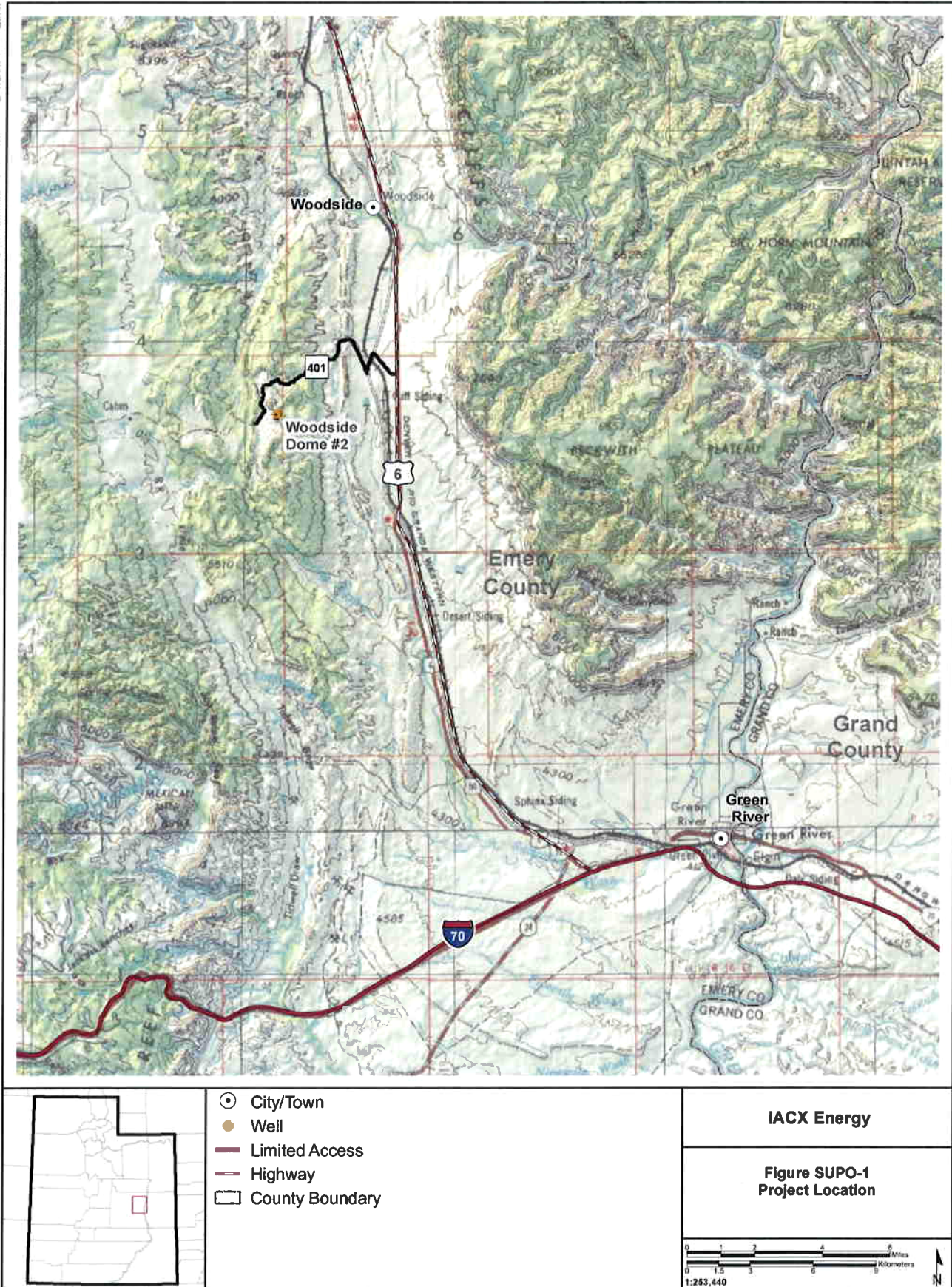




Figure SUPO-2

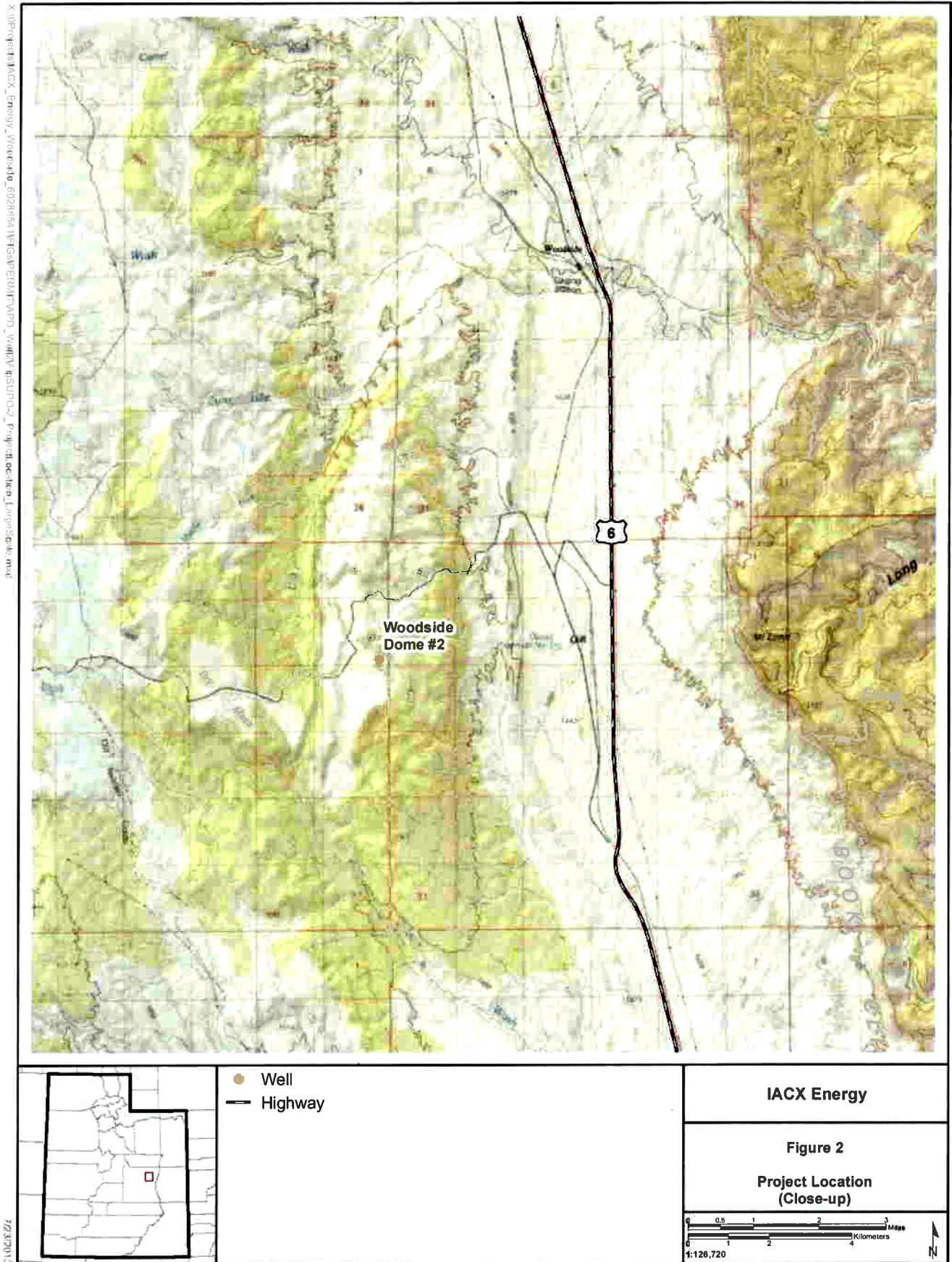




Figure SUPO-3

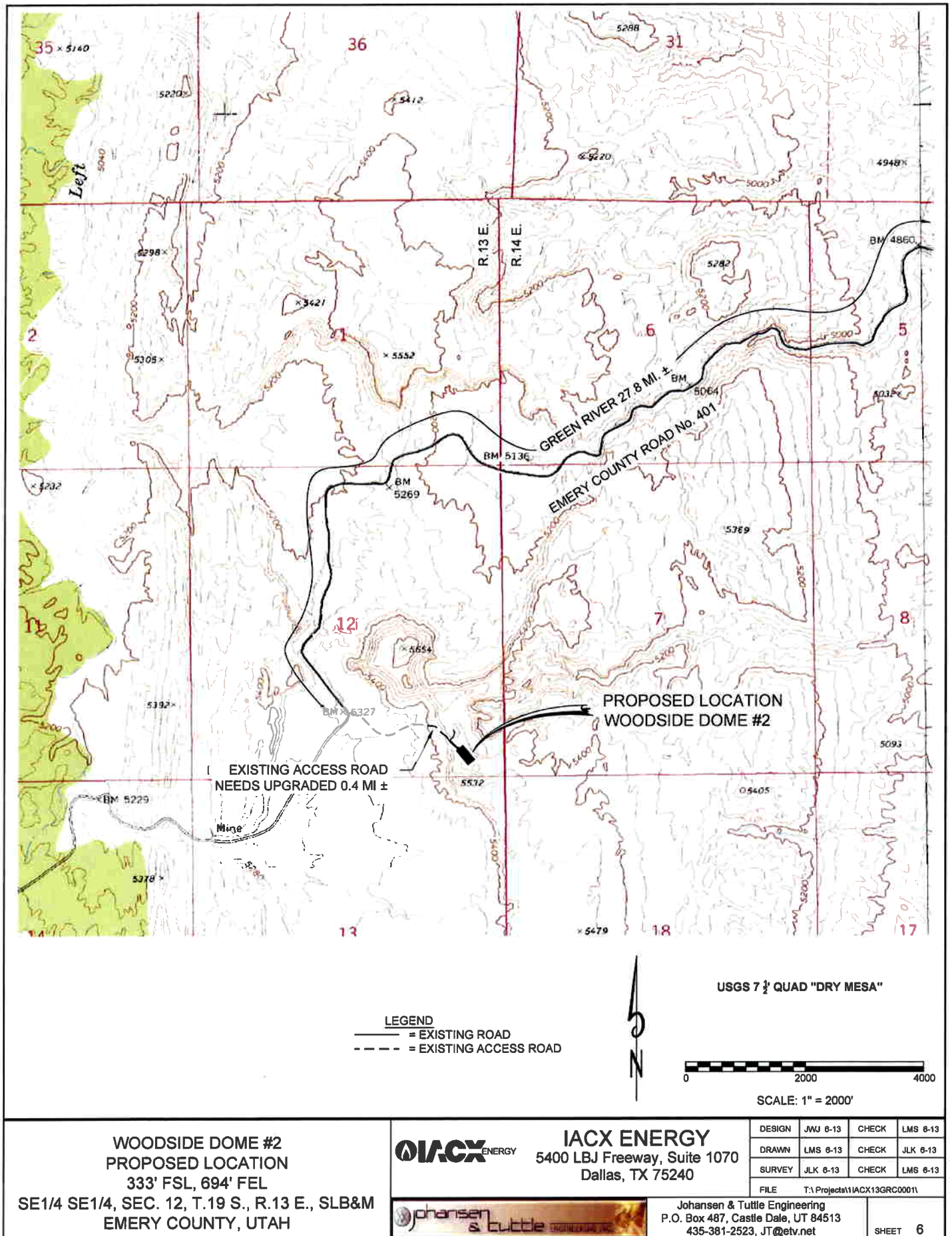
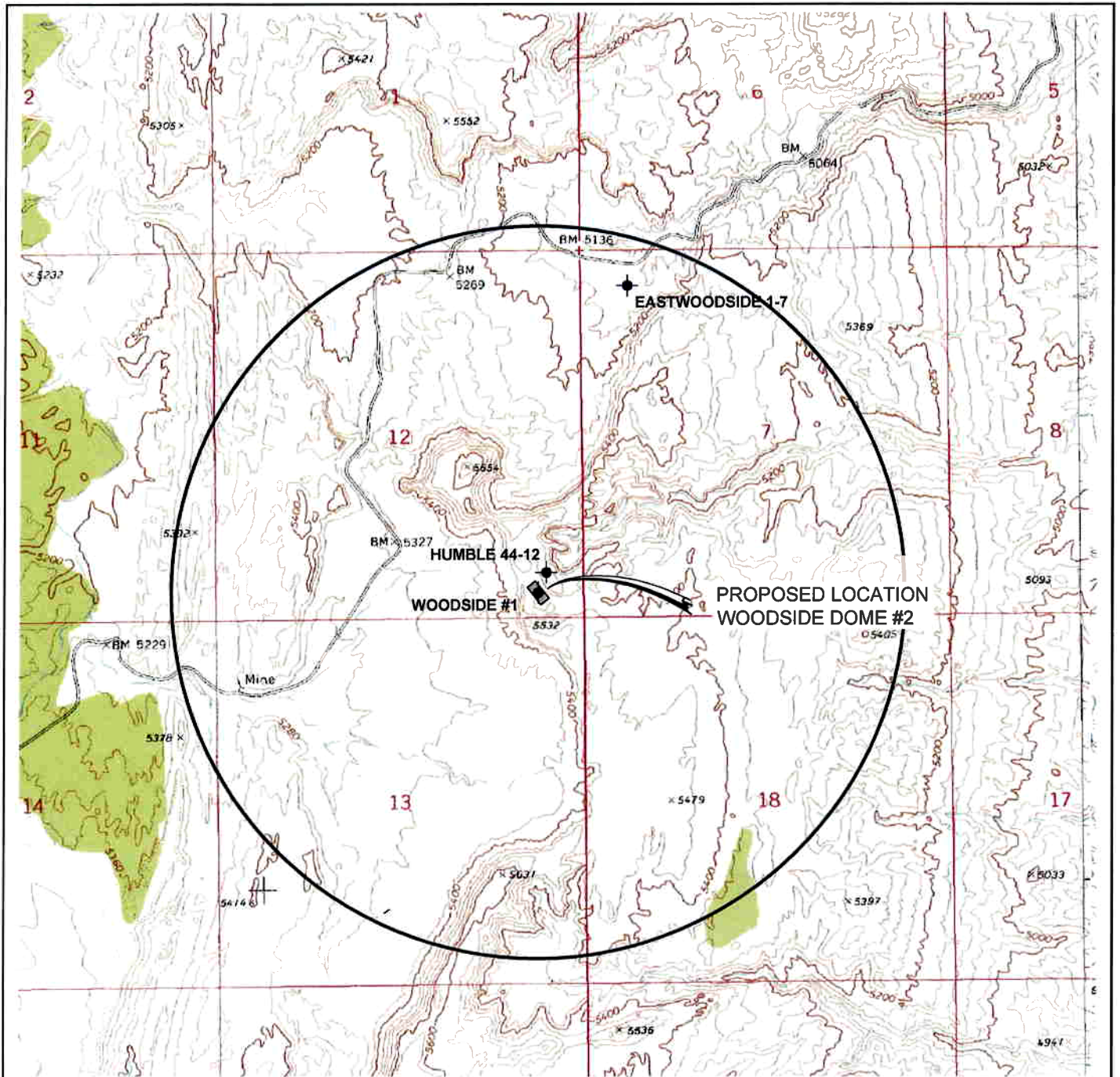


Figure SUPO-4

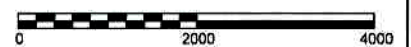


**LEGEND**

- ⌀ = DISPOSAL WELLS
- = PRODUCING WELLS
- ◆ = SHUT IN WELLS
- ⌀ = WATER WELLS
- ◆ = ABANDONED WELLS
- = TEMPORARILY ABANDONED



USGS 7 1/2 QUAD "DRY MESA"



SCALE: 1" = 2000'

**WOODSIDE DOME #2**  
**TOPO**

333' FSL, 694' FEL  
SE1/4 SE1/4, SEC. 12, T.19 S., R.13 E., SLB&M  
EMERY COUNTY, UTAH



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P.O. Box 487, Castle Dale, UT 84513  
435-381-2523, JT@etv.net

|        |                             |       |          |
|--------|-----------------------------|-------|----------|
| DESIGN | JWJ 6-13                    | CHECK | LMS 6-13 |
| DRAWN  | LMS 6-13                    | CHECK | JLK 6-13 |
| SURVEY | JLK 6-13                    | CHECK | LMS 6-13 |
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SHEET **7**



Figure SUPO-5



VIEW FROM CORNER 2 LOOKING WESTERLY



VIEW FROM NEAR CORNER 3 LOOKING NORTHERLY

**WOODSIDE DOME #2  
PHOTOS**

333' FSL, 694' FEL  
SE1/4 SE1/4, SEC. 12, T.19 S., R.13 E., SLB&M  
EMERY COUNTY, UTAH



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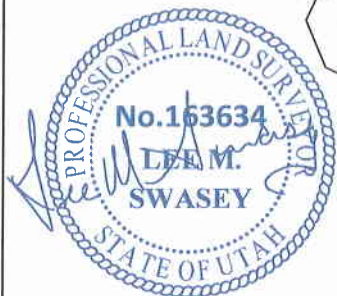
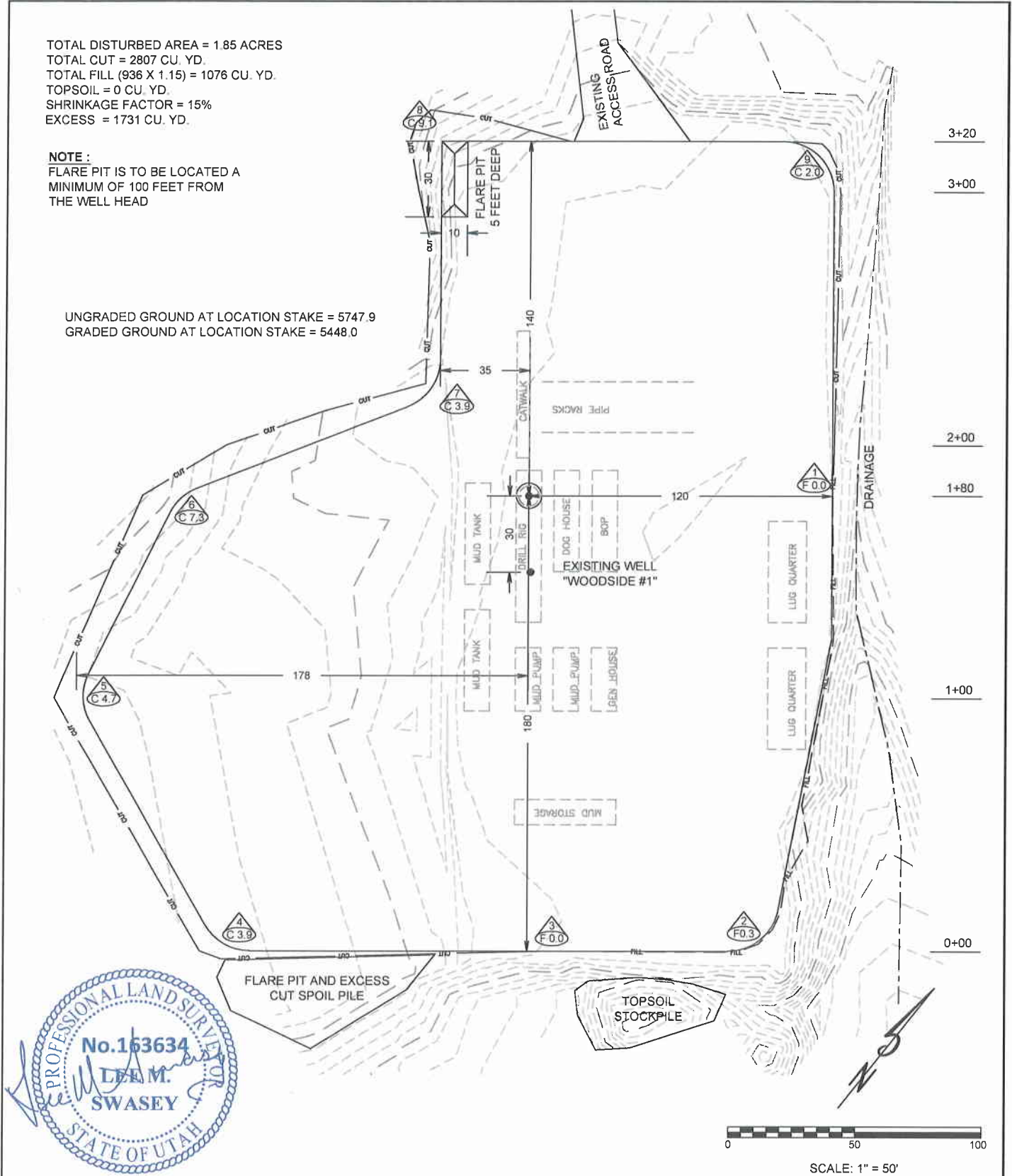
SHEET **2**

Figure SUPO-6

TOTAL DISTURBED AREA = 1.85 ACRES  
 TOTAL CUT = 2807 CU. YD.  
 TOTAL FILL (936 X 1.15) = 1076 CU. YD.  
 TOPSOIL = 0 CU. YD.  
 SHRINKAGE FACTOR = 15%  
 EXCESS = 1731 CU. YD.

**NOTE :**  
 FLARE PIT IS TO BE LOCATED A  
 MINIMUM OF 100 FEET FROM  
 THE WELL HEAD

UNGRADED GROUND AT LOCATION STAKE = 5747.9  
 GRADED GROUND AT LOCATION STAKE = 5448.0



WOODSIDE DOME #2  
 WELL PAD - LOCATION LAYOUT  
 333' FSL, 694' FEL  
 SE1/4 SE1/4, SEC. 12, T.19 S., R.13 E., SLB&M  
 EMERY COUNTY, UTAH



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 5400 LBJ Freeway, Suite 1070  
 Dallas, TX 75240



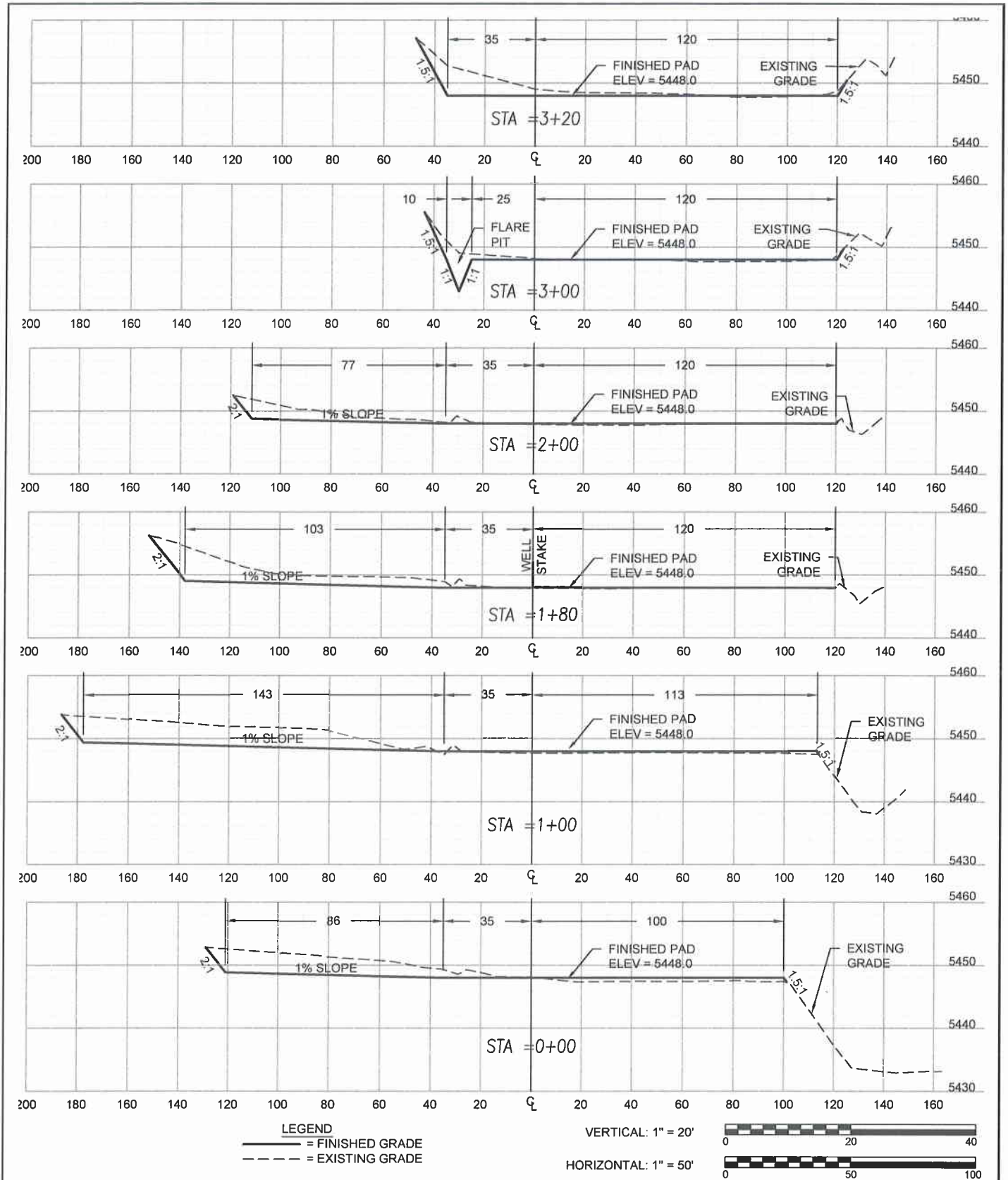
Johansen & Tuttle Engineering  
 P.O. Box 487, Castle Dale, UT 84513  
 435-381-2523, JT@etv.net

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| DRAWN  | LMS 6-13                     | CHECK | JLK 6-13 |
| SURVEY | JLK 6-13                     | CHECK | LMS 6-13 |
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SHEET 3



Figure SUPO-7



WOODSIDE DOME #2  
 WELL PAD - CROSS SECTIONS  
 333' FSL, 694' FEL  
 SE1/4 SE1/4, SEC. 12, T.19 S., R.13 E., SLB&M  
 EMERY COUNTY, UTAH



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 5400 LBJ Freeway, Suite 1070  
 Dallas, TX 75240

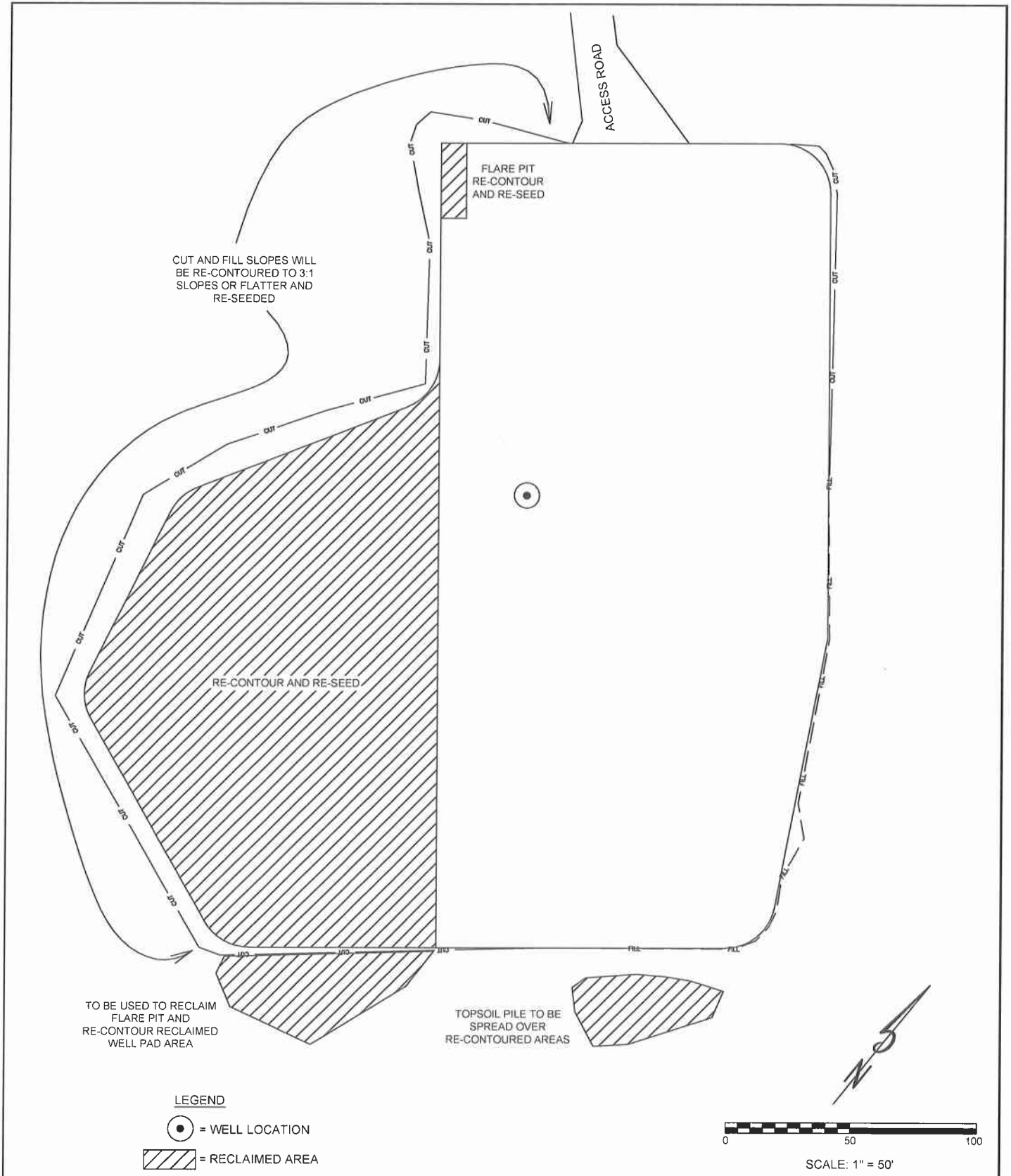
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| SURVEY | JLK 6-13                    | CHECK | LMS 6-13 |
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 435-381-2523, JT@etv.net

SHEET 4

Figure SUPO-8



WOODSIDE DOME #2  
WELL PAD - RECLAMATION LAYOUT  
333' FSL, 694' FEL  
SE1/4 SE1/4, SEC. 12, T.19 S., R.13 E., SLB&M  
EMERY COUNTY, UTAH



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|        |                             |       |          |
|--------|-----------------------------|-------|----------|
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| DRAWN  | LMS 6-13                    | CHECK | JLK 6-13 |
| SURVEY | JLK 6-13                    | CHECK | LMS 6-13 |
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SHEET 5



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
440 West 200 South, Suite 500  
Salt Lake City, UT 84101  
<http://www.blm.gov/ut/st/en.html>



IN REPLY REFER TO:  
3104 (UT922000)  
UTB00572

CERTIFIED MAIL – Return Receipt Requested  
7010 2780 0000 9887 5657  
7010 2780 0000 9887 5664

### DECISION

|                              |   |                                  |
|------------------------------|---|----------------------------------|
| Principal:                   | : | Bond Type: Statewide Oil and Gas |
| IACX Energy LLC              | : |                                  |
| 5400 LBJ Freeway, Suite 1070 | : | Bond Amount: \$75,000            |
| Dallas, Texas 75240          | : |                                  |
|                              | : | BLM Bond No.: UTB000572          |
| Surety:                      | : |                                  |
| Argonaut Insurance Company   | : | Surety Bond No.: SUR0020793      |
| PO Box 469011                | : |                                  |
| San Antonio, Texas 78246     | : |                                  |

### Statewide Oil and Gas Surety Bond Accepted

On May 17, 2013, this office received a \$75,000 statewide oil and gas bond for the principal named above. The bond has been examined, found satisfactory, and is accepted effective the date of filing.

The bond constitutes coverage of all operations conducted by or on behalf of the principal on Federal leases in the State of Utah. The bond provides coverage for the principal where that principal has interest in, and/or responsibility for operations on leases issued under the authority of any of the Acts cited on the bond form. Please note that Federal leases do not include Indian leases.

Termination of the liability under the bond will be permitted only after this office is satisfied that there is no outstanding liability on the bond or satisfactory replacement coverage is furnished.

If there are any questions concerning this decision, please contact Diane McComb of this office at (801) 539-4041.

*Becky J. Hammond*

Becky J. Hammond  
Acting Chief, Branch of Minerals



June 26, 2013

Anita Jones, Physical Scientist  
BLM Price Field Office  
125 South 600 West  
Price, UT 84501

Re: Operator Certification for proposed IACX Woodside Drilling Project Well 2 Exploration APD

Dear Anita,

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or IACX Energy, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 26th day of June, 2013.

A handwritten signature in black ink, appearing to read "Jeff Lee", is written over a horizontal line.

Jeff Lee, Vice President Projects and Construction  
IACX Energy  
5400 LBJ Freeway, Suite 1070  
Dallas TX 75240  
Direct: (972) 960-3219  
Fax: (972) 960-3215  
Cell: (918) 289-7440  
[jefflee@iacx.com](mailto:jefflee@iacx.com)



## **Attachment A. Change of Ownership Sundry Notice**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No  
UTU 73059

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2.**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator  
IACX Energy LLC

N 4000

3a. Address  
5400 LBJ Freeway, Suite 1070 Dallas, Texas 75240

3b. Phone No. (include area code)  
972-960-3210

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 12 T19S R13E SESE 323 FSL 687FEL

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No  
Woodside #1

9. API Well No.  
43-015-30701-00-S1

10. Field and Pool or Exploratory Area  
Wildcat

11. County or Parish, State  
Emery County, UT

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |   |  |   |
|--|---|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off                             |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity                             |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other <u>Change of Operator</u> |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |   |
|  | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |   |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Change of Operator: Effective Date is May 17, 2013

New Operator is:

IACX Energy LLC  
5400 LBJ Freeway, Suite 1070  
Dallas, Texas 75240

972-960-3210

Contact Person: Scott Sears  
Cody Compton

BLM Bond: UTB000572

**APPROVED**

**JUN 12 2013**

**DIV. OIL GAS & MINING**

BY: [Signature] for Rachel Medina

**RECEIVED**

**JUN 11 2013**

**DIV. OF OIL, GAS & MINING**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
Cody J. Compton

Title CFO

Signature

[Signature: Cody J. Compton]

Date 06/10/2013

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

## Attachment B. BBC Woodside #1 Surface Use Conditions of Approval

The following sections contain all relevant Conditions of Approval (COA) for the Approved Permit to Drill for Well 43-015-30701 (Woodside #1; Environmental Assessment UT-070-2006-55) ; i.e., those COAs related to road improvement, drilling, and reclamation activities. COAs pertaining to production, pipelines, or production facilities are not included in this list. Some of these COAs have been revised slightly to make them more applicable to the exploratory nature of this project or to incorporate best available information. COA revisions are underlined and italicized.

### Site Specific Conditions of Approval

1. An annual springtime ground-based survey for raptor nests would be required if the well and other future wells are to be produced.
2. In the event fossils are unearthed in the course of excavation by the operator, or any person working on his behalf on public land will be immediately reported to the Price BLM Office. The Price BLM Field Office will instruct the contractor as to the proper course of action.

### Standard Conditions of Approval

#### A. General

1. The operator shall contact the Price BLM Office at least forty-eight hours prior to the anticipated start of construction and/or any surface disturbing activities. The BLM may require and schedule a preconstruction conference with the operator prior to the operator commencing construction and/or surface disturbing activities. The operator and the operator's contractor, or agents involved with construction and/or any surface disturbing activities associated with the project, shall attend this conference to review the Conditions of Approval and plan of development. The operator's inspector will be designated at the pre-drill conference, and is to be given an approved copy of all maps, permits and conditions of approval before the start of construction. The BLM will also designate a representative for the project at the preconstruction conference.
2. The operator shall designate a representative(s) who shall have the authority to act upon and to implement instructions from the BLM. The operator's representative shall be available for communication with the BLM within a reasonable time when construction or other surface disturbing activities are underway.
3. If any cultural values [sites, artifacts, human remains] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Price Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that

might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:

- Whether the materials appear eligible for the National Register of Historic Places;
  - The mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary).
    - A time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
4. The operator shall restrict travel on unimproved roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4-inches, travel outside roadway, etc.).
  5. The Companies will provide geo-referenced spatial data depicting as-built locations of all facilities, wells, roads, pipelines, power lines, and other related facilities to the BLM by November 1 of each year until completion of project construction activities has occurred.
  6. If any dead or injured threatened, endangered, proposed, or candidate species is located during construction or operation, the BLM Price Field Office (435-636- 3600) shall be notified within 24 hours.

## **B. Construction**

1. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized to minimize erosion and stabilize disturbed soils.
2. Construction and surface disturbing activities will not be conducted during periods of frozen or saturated soils when watershed damage or excessive rutting is likely to occur.
3. Remove the top 6 inches of topsoil from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized in accordance with a BLM approved reclamation/revegetation plan.
4. Drill pads and facility sites are to be designed to prevent overland flow of water from entering or leaving the site. Storm water collected on disturbed sites will be prevented from flowing off the site and the pad is to be sloped to provide for zero runoff. The drill pad shall be designed to disperse diverted overland flow and to regulate flow velocity so as to prevent or minimize erosion. Well pad diversion outlets shall be equipped with rock energy brakes and gravel-bedded dispersion fans.

5. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
6. Construct the backslope no steeper than 1Y2:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
7. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
10. Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour and all access roads and well location speed limits will not exceed 15 miles per hour.
11. During construction, emissions of particulate matter from well pad and road construction will be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
12. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD.

### **C. Operations/Maintenance**

1. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels will be buried on location. IACX and its contractors will comply with all state and local laws and regulations pertaining to disposal of human and solid waste.
2. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
3. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of

storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.

4. If this well is drilled during the fire season (June-October), the operator shall institute all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access route(s) and well location(s), keeping firefighting equipment readily available when drilling, etc.

#### **E. Roads**

1. The operator is responsible for repairs and maintenance of all roads authorized through the lease or right-of-way. Repairs and maintenance shall comply with Level 3 Road Standards as described in BLM Manual Section 9113, the BLM Gold Book standards, except as modified by BLM. Maintenance may include but is not limited to grading, applying gravel, snow removal, ditch cleaning, and headcut restoration/prevention.
2. Topsoil from access roads and pipelines are to be wind rowed along the uphill side of the road or stored in an approved manner. When the road is rehabilitated, this soil will then be used as a top coating for the seed bed.
3. The operator shall provide an inspector under the direction of a registered professional engineer (PE) at all times during road construction. A PE shall certify (statement with PE stamp) that the road was repaired to the required Bureau of Land Management (BLM) road standards.
4. Repairs to existing erosion-control structures such as water bars, diversion channels, and terraces will divert water and reduce soil erosion on the disturbed area. Road ditch turnouts shall be equipped with energy dissipaters as needed to avoid erosion. Where roads interrupt overland sheet-flow and convert this runoff to channel flow, ditch turnouts shall reconvert channel flow to sheet flow. Rock energy dissipaters and gravel dispersion fans may be used, or any other design which would accomplish the desired reversion of flow regime. As necessary cut banks, road drainages, and road crossings shall be armored or otherwise engineered to prevent headcutting.

#### **F. Dry Hole/Reclamation**

1. Interim reclamation will be initiated as soon as is practical after construction and drilling operations. Areas to be reclaimed include but are not limited to road out slopes and areas of well pad sites no longer needed for drilling operation activities. Interim reclamation operations will follow BLM guidelines and only BLM approved seed mixes will be used.
2. Upon cessation of production of the project the Proponent will expediently reclaim and reseed all disturbed lands including but not limited to well pad sites and access roads in accordance with BLM guidelines and any pertinent COAs.
3. Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.

4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour.
6. Phased reclamation plans will be submitted to BLM for approval prior to facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
  - Configuration of reshaped topography, drainage systems, and other surface manipulations
  - Waste disposal
  - Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
  - Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
  - An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
  - Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
  - Decommissioning/removal of all surface facilities
7. BLM will not release the performance bond until all disturbed areas associated with the APD/POD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
8. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
9. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
10. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
11. Any mulch utilized for reclamation needs to be certified weed-free.

12. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

| <b>Slope<br/>(percent)</b> | <b>Spacing Interval<br/>(feet)</b> |
|----------------------------|------------------------------------|
| $\leq 2$                   | 200                                |
| 2 – 4                      | 100                                |
| 4 – 5                      | 75                                 |
| $\geq 5$                   | 50                                 |



## **Attachment C. Green River District Office 2011 Reclamation Plan Guidelines**

## **Green River District Reclamation Guidelines**

The Green River District Office Guidelines applies to all surface disturbing activities upon BLM administered surface lands. These activities include all actions authorized, conducted, or funded by the BLM, and that disturb the soil resources on the public lands. This policy is intended to be compatible with other BLM program objectives.

A reclamation plan shall be developed for all surface disturbing activities. The level of detail for the reclamation plan shall reflect: the complexity of the project, the environmental concerns generated during project review, and the reclamation potential for the site. These plans shall also incorporate any program or regulatory specific requirements for reclamation. The reclamation plan will address short term stabilization to facilitate long term reclamation. The reclamation plan is considered complete when all the reclamation requirements described below have been addressed, the techniques needed to meet the reclamation standards are described in detail, and the BLM concurs with the reclamation plan.

Compliance with the requirements of this document will be a Surface Use Condition of Approval (COA) and approved mitigation actions for all future BLM authorizations within the jurisdiction of the Green River District Office.

### **A. RECLAMATION GOAL**

1. The long term goal for reclamation is to facilitate eventual ecosystem reconstruction by returning the land to a safe, stable, and proper functioning condition.
2. The short-term reclamation goal is to immediately stabilize disturbed areas and to provide the necessary conditions to achieve the long term goal.

### **B. RECLAMATION OBJECTIVES**

1. Establish a desired self-perpetuating diverse plant community. The objective is to attain **75% basal cover** based on similar undisturbed adjacent native vegetative community, and comprised of desired species and/or seeded species within 5 years of initial reclamation action. Species diversity should approximate the surrounding undisturbed area. For areas that are in poor range condition due to past land management practices, then the species diversity should approximate the site as described in the NRCS Ecological Site description. However if after three (3) growing seasons there is less than **30%** of the basal cover based on similar undisturbed native vegetative community, then the Authorized Officer may require additional reclamation efforts.
2. Establish slope stability and desired topographic diversity.
3. Reconstruct and stabilize altered water courses and drainage features.
4. Ensure the biological, chemical, and physical integrity of the topsoil resource during all phases of construction, operation, and reclamation. BMP's designed to minimize and

prevent erosion, compaction, and contamination of the topsoil resource should be used to maintain the topsoil resource.

5. Re-establish the visual composition and characteristics to blend with the natural surroundings.
6. Control the occurrences of noxious weeds and undesirable invasive species by utilizing principles of integrated weed management including prevention, mechanical, chemical, and biological control methods.
7. Manage all waste materials.
8. Conduct monitoring that is able to assess the attainment or failure of reclamation actions.

### C. RECLAMATION ACTIONS

*The following Reclamation Actions are intended to facilitate the achievement of the Reclamation Objectives. These actions shall be adhered to during reclamation activities. Changes/alterations to the Reclamation Actions should be detailed in the submitted reclamation plan as to why the changes/alterations are necessary and approved by the Authorized Officer.*

#### **Objective 1. Establish a desired self-perpetuating plant community.**

Action 1a. Use of non native plant species is allowed, however, selected non native species should be selected that will not displace or offer long-term competition to the native plants.

Action 1b. Drill Seeding is the preferred method of seed application unless site conditions preclude the use of drill seeding equipment. Drill seeds at the rate of 45 Pure Live Seeds (PLS) per linear foot. Seeds should be drilled to a depth of .25 to .50 inches. Some plant seeds should not be drilled and if incorporated the application method should fit the seed type requirements.

Action 1c. Areas in excess of 40% slope or are excessively rocky will be broadcast seeded at 80-90 PLS and covered to a maximum of .25 inches by harrowing, drag bar, or roller.

Action 1d. Seeding efforts must be conducted between August 15 and prior to winter freezing of the soil.

Action 1e. All seed utilized will be tested prior to application to ensure BLM specifications for PLS, purity, noxious weeds, etc. have been met. Seed tags will be provided to the Authorized Officer prior to initiation of seeding activities.

Action 1f. As determined in cooperation with the Authorized Officer, fencing may be required to exclude livestock/big game grazing until seeded species have become established. Fencing would be constructed to BLM standards.

Action 1g. As determined in cooperation with the Authorized Officer mulching may be required. Mulch should be applied within 24 hours following completion of seeding. Mulching should consist of crimping certified weed-free straw or certified weed-free native grass hay into the soil. Hydro-mulching may be used in areas where crimping is impracticable, in areas of interim reclamation that were hydro-seeded, and in areas of temporary seeding regardless of seeding method.

**Objective 2. Ensure slope stability and topographic diversity**

Action 2a. Reconstruct the landscape to approximate the original contour and topographic diversity.

Action 2b. Identify necessary erosion controls designed to prevent sediment transport from the reclaimed areas.

**Objective 3. Reconstruct and stabilize altered water courses and drainage features.**

Action 3a. Reconstruct drainage basins to have similar features found in nearby properly functioning basins, including: basin relief ratios, valley gradients, sinuosity, and drainage densities for all reclaimed basins.

Action 3b. Reconstruct drainages to have similar hydraulic characteristics found in properly functioning drainages, including: flow depth, water surface top width, cross-section area of flow, water surface slope, mean channel velocity, desired vegetation, and channel roughness.

**Objective 4. Ensure the biological, chemical, and physical integrity of the topsoil resource during all phases of construction, operation, and reclamation. BMP's designed to minimize and prevent erosion, compaction, and contamination of the topsoil resource should be used to maintain the topsoil resource.**

Action 4a. Segregate topsoil from subsoil without mixing them, based on site specific conditions.

Action 4b. Where possible, integrate stored topsoil into existing production landscape.

Action 4c. Stabilize all stored topsoil from erosion, and seed topsoil stored beyond one growing season with an approved seed mixture.

Action 4d. Identify topsoil storage with appropriate signage, to prevent improper use of the stored topsoil.

Action 4e. Redistribute the topsoil to pre-disturbance depth.

Action 4f. Reduce soil/subsoil compaction to the anticipated root depth of the desired plant species. Compaction relief typically should be designed for 18-24 inches in depth. Compaction relief should be designed to create a cross hatch pattern, and distance between furrows should not be greater than 2 feet.

Action 4g. If the topsoil to be re spread is greater than 6" in depth, then topsoil should be applied and then compaction relief implemented. If the topsoil to be re spread is less than 6" , then compaction relief should be implemented prior to top soil application. Avoid leaving large clumps/clods, if this exists, discing may be necessary.

**Objective 5. Re-establish the visual composition and characteristics to blend with the natural surroundings.**

Action 5a. Ensure the overall location, landform, scale, shape, color, and orientation of major landscape features blends into the adjacent area and meets the needs of the planned post disturbance land use.

**Objective 6. Control the occurrences of noxious weeds and undesirable invasive species by utilizing principles of integrated weed management including prevention, mechanical, chemical, and biological control methods.**

Action 6a. Inventory and document noxious and invasive plant infestations before reclamation actions begin.

A pre disturbance noxious weed inventory shall be conducted on all surface disturbing projects to determine the presence of noxious weeds prior to beginning the project, and to determine whether treatment is needed prior to disturbance. If noxious weeds are found a report including:

- 1) A GPS location recorded in North American Datum 1983
- 2) Species
- 3) Canopy cover or number of plants
- 4) Size of infestation (estimate of square feet or acres)

Information shall be provided to the BLM Weed Coordinator prior to the disturbance occurring, and also documented in the annual reclamation report.

Action 6b. Control and manage Invasive and Noxious weed infestations using principles of integrated weed management including chemical, mechanical, and biological control methods. An approved Pesticide Use Proposal (PUP) is required for all planned herbicide applications. Herbicides must be applied by a certified applicator with a current Utah Pesticide Applicators License. A Biological Use Proposal is required for new biocontrol agents in the Field Office area.

**Objective 7. Manage all waste materials.**

Action 7a. Segregate all waste materials from the subsoil and topsoil.

Action 7b. All waste materials transported and disposed of off-site, must be placed in an authorized disposal facility in accordance with all local, State and Federal requirements.

**Objective 8. Conduct monitoring that is able to assess the attainment or failure of reclamation actions.**

Action 8a. Monitoring methodology should be an approved BLM method designed to monitor basal vegetative cover. Monitoring criteria:

- 1) Qualitative monitoring data should be collected after the 2<sup>nd</sup> growing season following reclamation actions. Quantitative data should be collected after the 3<sup>rd</sup> and 5<sup>th</sup> growing seasons, and the year that the applicant determines that reclamation meets the long term objective of 75% basal cover as compared to the reference site.
- 2) Crested wheatgrass species and forage kochia should not account for more than 30% of the total measured basal cover.
- 3) All ROW's will a monitoring transect per each NRCS ecological site that the ROW passes through that is greater than 0.75 miles.
- 4) General view photographs of the reclaimed areas should be submitted with the quantitative data. Photographs should be taken at the same photo point each time, and as close to the same time of year as previous photos were taken to reduce differences in plant growth characteristics.

Action 8b. In cooperation with the Authorized Officer, an undisturbed reference site should be selected prior to monitoring. One reference site may be used for multiple reclamation sites as long the site potentials are similar. Reference site criteria:

- 1) Reference sites shall be permanently marked, and the location recorded by Global Positioning System (GPS) North American Datum 1983.
- 2) For ROW's a reference site shall be established in each unique NRCS Ecological Site that the ROW passes through.
- 3) A photograph consisting of a general view of the marked reference site should be submitted with the Reference site data.

Action 8c. Evaluate monitoring data for compliance with the reclamation plan objectives

Action 8d. Document and report monitoring data and recommend revised reclamation strategies, if necessary. Each applicant will submit an annual reclamation report to the Authorized Officer by March 1<sup>st</sup>. The report will document compliance with all aspects of the reclamation objectives and standards.

Action 8e. Implement revised reclamation strategies as needed.

Action 8f. Repeat the process of monitoring, evaluating, documenting/reporting, and implementing, until reclamation goals are achieved, as determined by the Authorized Officer.

## GLOSSARY

***Surface Disturbing Activities*** – An action that alters the mineral soil resource, and/or surface geologic features, beyond natural site conditions and on a scale that affects other Public Land values. Examples of surface disturbing activities may include: operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and power lines; and the conduct of several types of vegetation treatments. Surface disturbing activities may be either authorized or prohibited.

***Federal Action*** - Approval of specific projects, such as construction or management activities located in a defined geographic area. Projects include actions approved by permit or other regulatory decision as well as federal and federally assisted activities.

*National Environmental Policy Act (NEPA) [42 U.S.C. 4321 et seq.]*

***Interim Reclamation*** Interim reclamation consists of minimizing the footprint of disturbance by reclaiming all portions of the well site not needed for safe production operations. The portions of the well site not needed for operational and safety purposes will be recontoured to a final appearance that blends with the surrounding topography. Topsoil will be spread over these areas. The operator will spread the topsoil over the entire location except where an all-weather surface, access route or turnaround is needed. Production facilities should be clustered or placed offsite to maximize the opportunity for interim reclamation. Any incidental use on interim reclamation may require restoration of damage. This may require recontouring and seeding of the damaged area.

***Invasive Species*** - A species that is not native (or is alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

*Executive Order 13112*

***Reclamation Plan*** – A written document that addresses the reconstruction of disturbed ecosystems by returning the land to a condition approximate or equal to that which existed prior to disturbance, or to a stable and productive condition compatible with the land use plan.

***Waste materials*** – Any material that can interfere with successful reclamation, safety, and long term stability of a site (contaminated soil or water, drilling muds, solid waste).

*Adapted from various sources*

***Contamination*** - The presence of man-made chemicals or other alterations in the natural soil or water environment (pesticides, hazardous substances, petroleum, salts).

*Adapted from various sources*



## Attachment D. Access Routes Clarification

**Note: The following text provides additional information on vehicle access to the proposed Woodside Dome #2 well during well construction, operation, and maintenance. This information supplements the revised application for permit to drill (APD) submitted to the BLM Price Field Office on July 24, 2013.**

The proposed Woodside Dome #2 well site is accessed via County Road 401 (Green River Cutoff Road), an approximately 44-mile road trending east-west between Highway 10 just northwest of Castle Dale and Highway 6 south of Woodside (figure attached). The proposed Woodside Dome #2 well site is located about 37.4 road miles east of Highway 10 and about 7.4 road miles west of Highway 6.

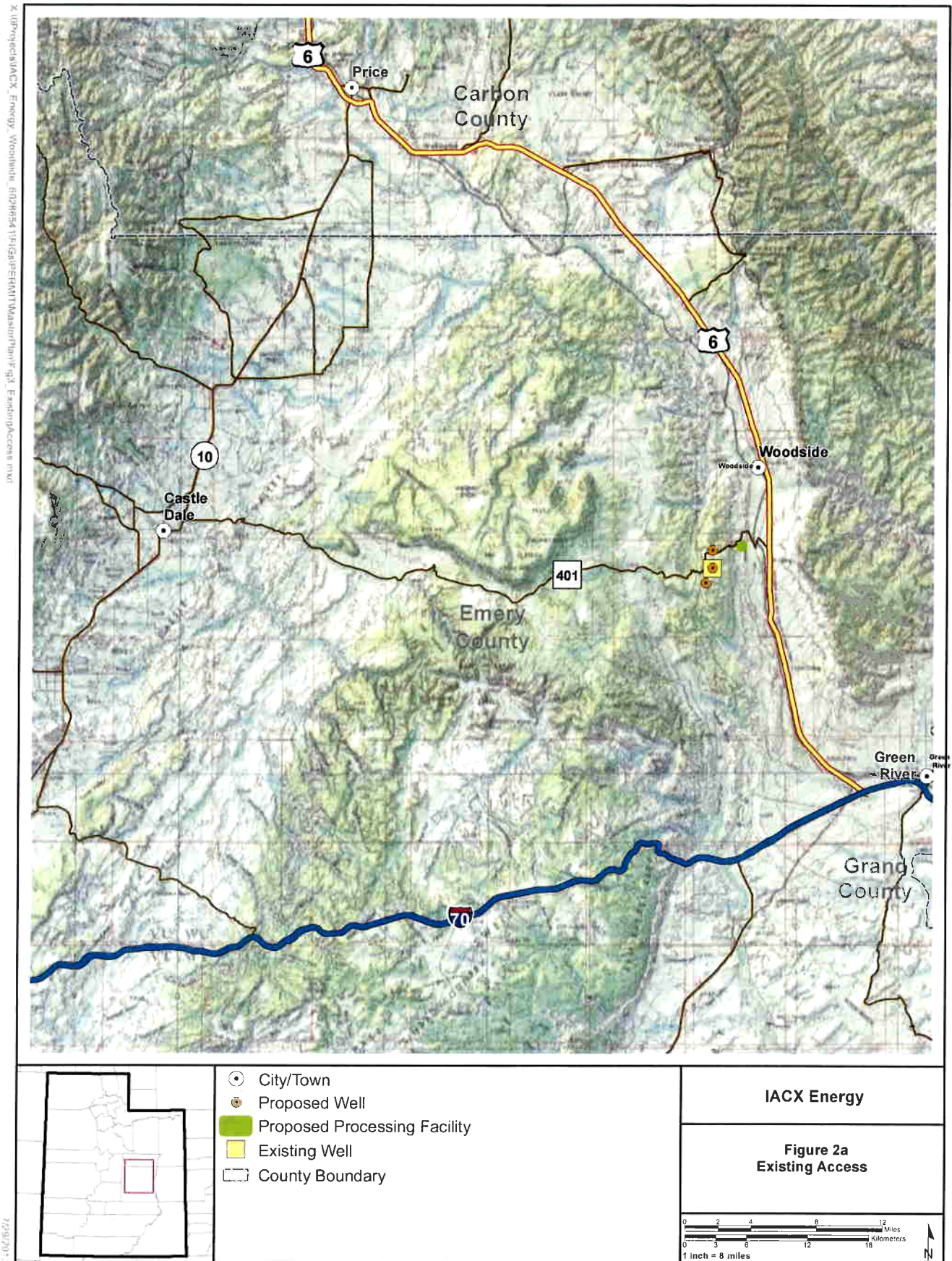
A drill rig would be transported to the project area via Highway 10 and the western portion of CR 401 in order to bypass an existing railroad underpass on CR 401 just west of Highway 6 that is too low to accommodate this equipment. Approximately 12-16 truckloads of equipment would be required to transport the drill rig to the location for assembly. No road upgrades would be required.

Heavy equipment used to repair the existing well site access road would be transported to the site by flatbed semi-tractor trailers via Highway 6 and the eastern portion of CR 401. The equipment would be off-loaded in a previously disturbed area adjacent to CR 401 near the gate to the existing access road.

During drilling, the following personnel may be on-site for any given shift (tour): a five-man drill rig crew, one company representative, one geologist, a 2-man crew for the closed loop drilling system and one water truck/equipment operator. Additional personnel such as the drilling contractor, health and safety supervisor, delivery drivers, suppliers, and government inspectors and service company personnel (for cementing, BOP testing, wireline, drill stem testing, and casing) also would be on-site on a regular basis. Consequently, at any given time there may be from 10 to 30 people on-site during drilling operations. Expected daily traffic would include 6-8 pickup trucks for employee commute and one water truck. All vehicles would enter the site via the east portion of CR 401.

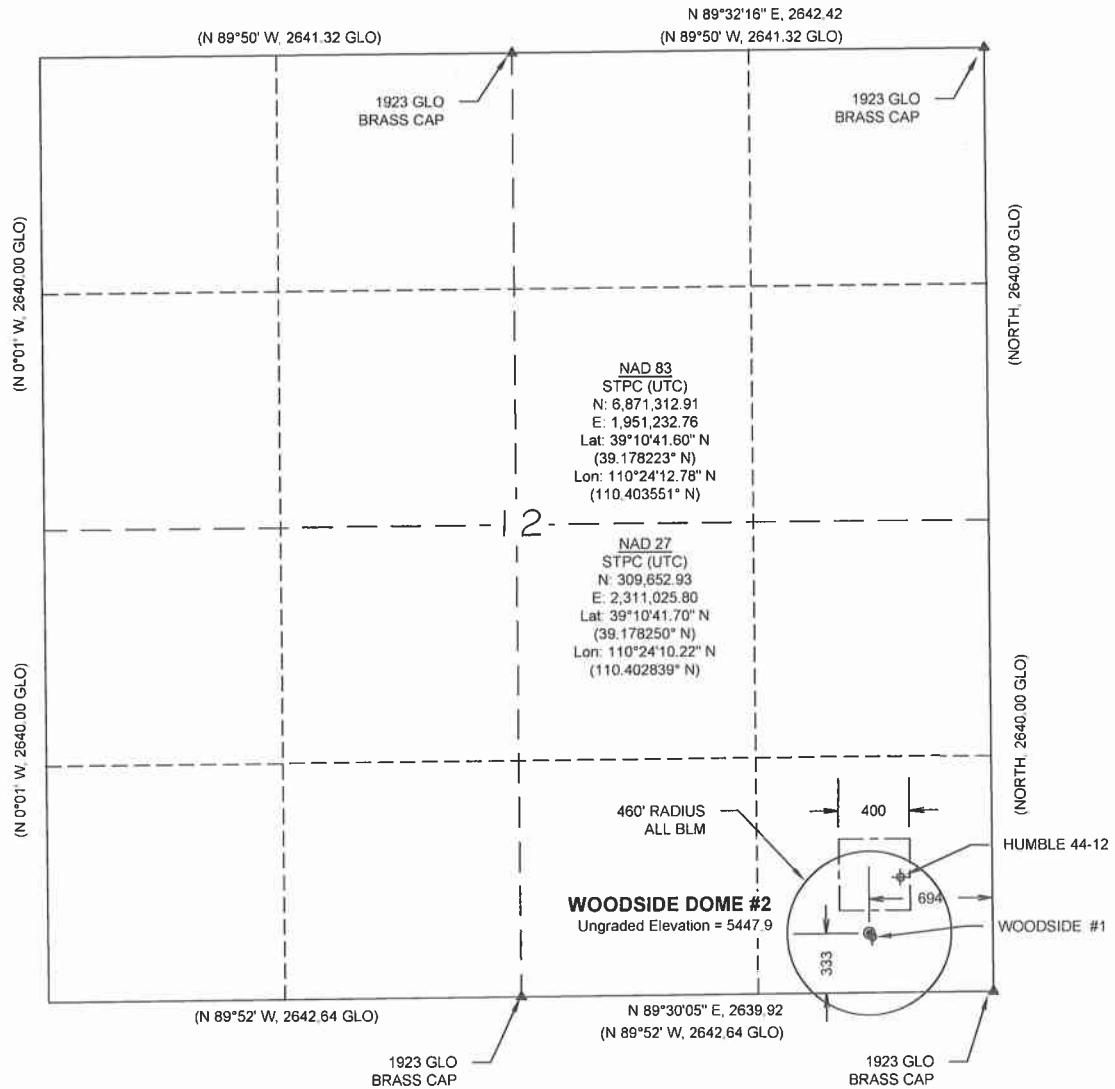
Should Woodside Dome #2 prove to have commercially viable helium reserves, it will be proposed for production. Helium production from this well is covered under a separate master development plan to be submitted to the BLM Price Field Office along with two other APDs in the near future.

Figure SUPO-2a

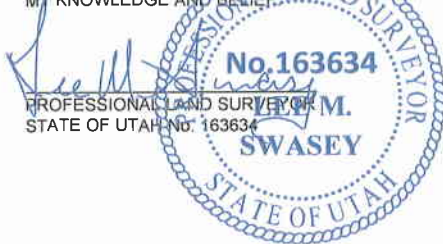


## **Attachment E. Well Siting Exception Request Letter**

# T. 19 S., R. 13 E., SLB&M



**CERTIFICATE OF SURVEYOR**  
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
MADE BY ME OR UNDER MY SUPERVISION, AND THAT  
THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
MY KNOWLEDGE AND BELIEF.



## BASIS OF BEARINGS

Utah Coordinate System 1983 Central  
Zone grid bearings derived from GPS  
observations at NGS Control Station  
"WOOD"

## BASIS OF ELEVATIONS

NAVD 88 (geoid 09) derived from GPS  
observations at NGS Control Station  
"WOOD"

## LEGEND

- = PROPOSED WELL HEAD
- ▲ = FOUND SECTION CORNER



SCALE: 1" = 1000'

**WOODSIDE DOME #2  
WELL PLAT**

333' FSL, 694' FEL  
SE1/4 SE1/4, SEC. 12, T.19 S., R.13 E., SLB&M  
EMERY COUNTY, UTAH



**IACX ENERGY**  
5400 LBJ Freeway, Suite 1070  
Dallas, TX 75240



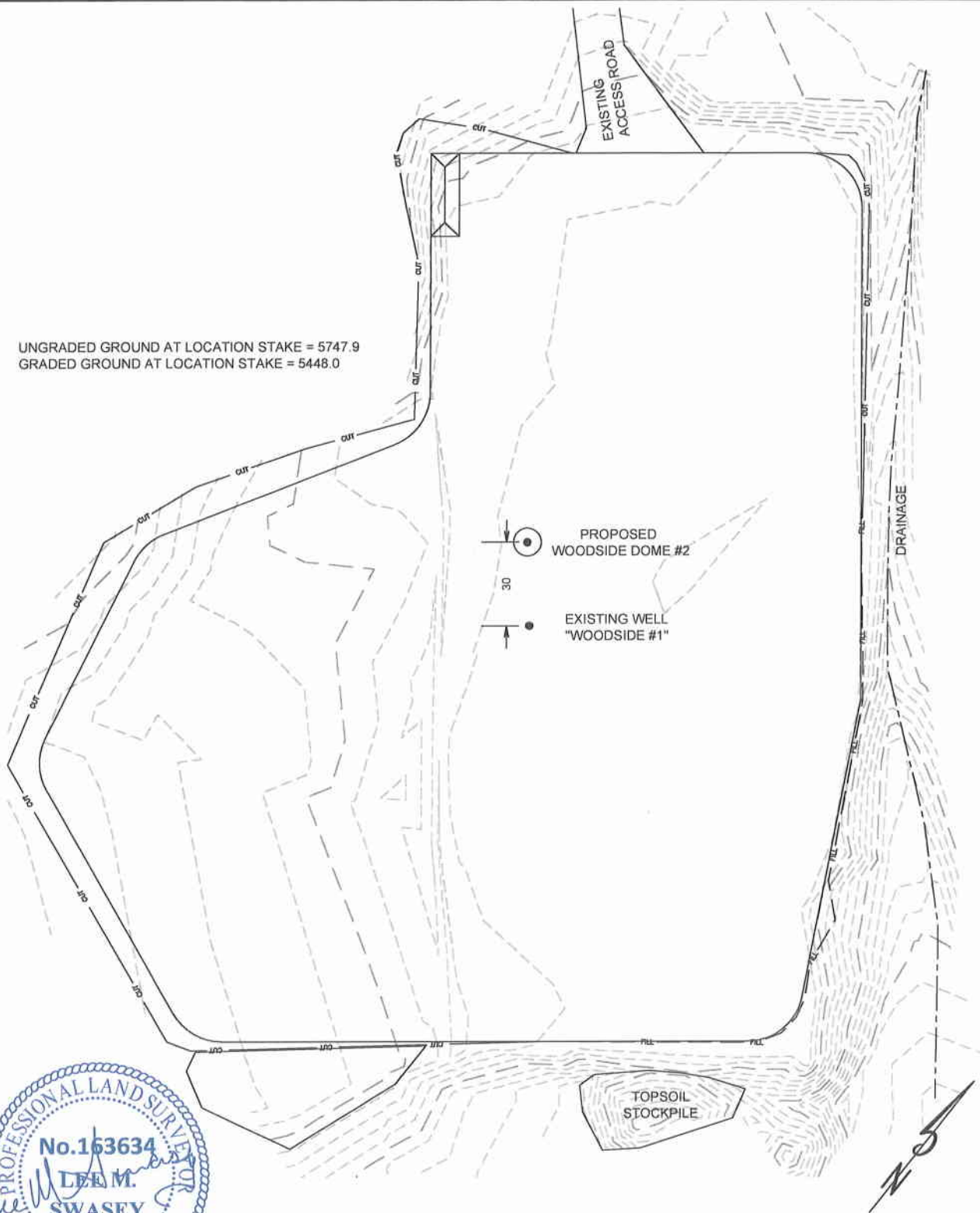
Johansen & Tuttle Engineering  
P.O. Box 487, Castle Dale, UT 84513  
435-381-2523, JT@etv.net

|        |                             |       |          |
|--------|-----------------------------|-------|----------|
| DESIGN | JWJ 6-13                    | CHECK | LMS 6-13 |
| DRAWN  | LMS 6-13                    | CHECK | JLK 6-13 |
| SURVEY | JLK 6-13                    | CHECK | LMS 6-13 |
| FILE   | T:\Projects\11ACX13GRC0001\ |       |          |

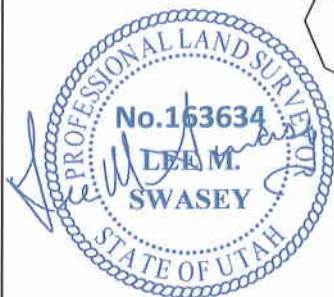
SHEET 2



UNGRADED GROUND AT LOCATION STAKE = 5747.9  
GRADED GROUND AT LOCATION STAKE = 5448.0



SCALE: 1" = 50'



WOODSIDE DOME #2  
WELL PAD - LOCATION LAYOUT  
333' FSL, 694' FEL  
SE1/4 SE1/4, SEC. 12, T.19 S., R.13 E., SLB&M  
EMERY COUNTY, UTAH



**IACX ENERGY**  
5400 LBJ Freeway, Suite 1070  
Dallas, TX 75240

|        |                             |       |          |
|--------|-----------------------------|-------|----------|
| DESIGN | JWJ 6-13                    | CHECK | LMS 6-13 |
| DRAWN  | LMS 6-13                    | CHECK | JLK 6-13 |
| SURVEY | JLK 6-13                    | CHECK | LMS 6-13 |
| FILE   | T:\Projects\11ACX13GRC0001\ |       |          |



Johansen & Tuttle Engineering  
P.O. Box 487, Castle Dale, UT 84513  
435-381-2523, JT@etv.net

SHEET 1

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No 1004-0137  
Expires October 31, 2014

5. Lease Serial No.  
UTU-73059

6. If Indian, Allottee or Tribe Name

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☒ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator IACX Energy

3a. Address 5400 LBJ Freeway, Suite 1070  
Dallas, TX 75240

3b. Phone No. (include area code)  
972-960-3219

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface SESE 333' FSL and 694' FEL

At proposed prod. zone same

7. If Unit or CA Agreement, Name and No.  
Woodside Dome Area

8. Lease Name and Well No.  
Woodside #1 Dome #2

9. API Well No.  
43-015-30704 30766

10. Field and Pool, or Exploratory  
Exploratory

11. Sec., T. R. M. or Blk. and Survey or Area  
Section 12 of Township 19 South,  
Range 13 East (T19S, R13E)

14. Distance in miles and direction from nearest town or post office\*  
28 miles from Green River, UT

12. County or Parish  
Emery

13. State  
UT

15. Distance from proposed\*  
location to nearest 333'  
property or lease line, ft.  
(Also to nearest drig. unit line, if any)

16. No. of acres in lease  
640

17. Spacing Unit dedicated to this well  
40

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. approximately 30'

19. Proposed Depth  
2,330 feet 3369'

20. BLM/BIA Bond No. on file  
UTB000572

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
5448' GL


22. Approximate date work will start\*  
09/01/2013

23. Estimated duration  
45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature 

Name (Printed Typed) Jeff Lee

Date 7/23/13

Title Vice President, Projects and Construction

Approved by (Signature) 

Name (Printed Typed) AHMED MOHAMED

Date 11/21/13

Title AFM LANDS & MINERALS

Office PRICE FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

NOs - 5/14/13  
onsite - 5/30/13

CONDITIONS OF APPROVAL ATTACHED

UDOGM

COPY

RECEIVED

DEC 19 2013

DIV. OF OIL, GAS & MINING



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
PRICE FIELD OFFICE



125 SOUTH 600 WEST      PRICE, UT 84501      (435) 636-3600

**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

Company: IACX Energy  
Well No: Woodside Dome #2  
API No: 43-015-30766

Surface Location: SESE-Sec 12-T19S-R13E  
Lease No: UTU-73059  
Agreement: N/A

| Title  | Name            | Office Phone Number | Cell Phone Number |
|--|-----------------|---------------------|-------------------|
| Associate Field Manager<br>& Authorized Officer: | Ahmed Mohsen    | (435)-636-3637      |                   |
| Petroleum Engineer:                              | Leslie Peterson | (435) 636-3661      | (435) 650-9136    |
| Petroleum Engineering Technician:                | Angela Wadman   | (435) 636-3662      | (435) 632-8595    |
| Petroleum Engineering Technician:                | James Lamb      | (435) 636-3615      | (435) 650-9140    |
| NRS/Physical Scientist:                          | Don Stephens    | (435) 636-3608      |                   |
| NRS/Physical Scientist:                          | Anita Jones     | (435)-636-3668      |                   |

Fax: (435) 636-3657

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

|   |   |
|---|---|
| Location Construction<br>(Notify NRS)                               | - Forty-Eight (48) hours prior to construction of location and access roads.  |
| Location Completion<br>(Notify NRS)                                 | - Prior to moving on the drilling rig.  |
| Spud Notice<br>(Notify Petroleum Engineer)                          | - Twenty-Four (24) hours prior to spudding the well.  |
| Casing String & Cementing<br>(Notify Petroleum Eng. Technician)     | - Twenty-Four (24) hours prior to running casing and cementing all casing strings.  |
| BOP & Related Equipment Tests<br>(Notify Petroleum Eng. Technician) | - Twenty-Four (24) hours prior to initiating pressure tests.  |
| First Production Notice<br>(Notify Petroleum Engineer)              | - Within Five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days. |



## **DRILLING PROGRAM CONDITIONS OF APPROVAL (COAs)**

### **SITE SPECIFIC DRILLING & PRODUCTION COAs**

1. Cement baskets shall not be used on the surface casing.
2. The surface casing shall have centralizers on the bottom 3 joints of the casing (a minimum of 1 centralizer per joint, starting with the shoe joint), in accordance with Onshore Order #2, Part III.B.f.
3. When cementing surface casing, if cement returns are not seen at surface, mitigation measures shall be taken to ensure the groundwater and all usable waters are properly protected per Onshore Order #2 Part III.B.1(c) Casing and Cementing Requirements. Cementing jobs where cement reaches the surface, then falls back downhole, shall be topped off as necessary until such time the cement remains in place at surface, prior to starting drilling operations on the next casing string.
4. As a minimum, the BOP and related equipment shall be tested when initially installed; whenever any seal subject to test pressure is broken; following related repairs; and at 30-day intervals.
5. When cementing the production casing, the cement job shall contain sufficient volume to attempt full coverage of exposed hole behind the pipe to protect all usable waters, lost circulation zones and other minerals which may be encountered while drilling to total depth, and also provide a minimum of **200'** overlap above the surface casing shoe. A cement bond log (CBL) shall be run to determine the top of cement behind the production casing, and a field copy sent to the Price Field Office.
6. No variances were requested nor approved from the minimum standards of Order Nos. 2 and 6.

### **STANDARD OPERATING REQUIREMENTS**

- The requirements included in Onshore Order #2 Drilling Operations shall be followed.
- A copy of the approved Application for Permit to Drill (APD) for this well shall be on location at all times once drilling operations have commenced.
- The Price Field Office petroleum engineer will be notified 24 hours prior to spudding the well.
- Notify the Price Field Office petroleum engineering technician at least 24 hours in advance of casing cementing operations, BOPE tests and casing pressure or mud weight equivalency tests.
- The requirements of Onshore Order #6 Hydrogen Sulfide Operations shall be followed when operations are being conducted in zones which are known or could reasonably be expected to contain H<sub>2</sub>S or which, when flared, could produce SO<sub>2</sub>, in such concentrations that upon release could constitute a hazard to human life. These requirements do not apply when operating in zones where H<sub>2</sub>S is presently known not to be present or cannot reasonably be expected to be present in concentrations of 100 ppm or more in the gas stream.
- Any deviation from the permitted APD's proposed drilling program shall have prior approval from the petroleum engineer. Changes may be requested verbally (to be followed by a written sundry sent to this office), or submitted by written sundry if time warrants.

- Blowout prevention equipment (BOPE) shall remain in use until the well is completed. The closing unit controls shall remain unobstructed and readily accessible at all times, and choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily, and the inspections recorded in the daily drilling report. Components shall be operated and tested, as required by Onshore Order #2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder, and not by the rig pumps. Test results shall be reported in the driller's log.
- All casing strings below the conductor pipe shall be pressure tested to .22 psi/foot or 1500 psi (whichever is greater), but not to exceed 70% of the internal yield pressure.
- No aggressive/fresh hard-banded drill pipe shall be used in the casing design. The proposed use of non-API standard casing must be approved in advance by the petroleum engineer.
- During drilling operations, daily drilling reports shall be submitted by sundry on a weekly basis to the Price Field Office. Within 30 days of finishing drilling and completion operations, a chronological daily operations history shall be submitted by sundry to this office. A copy of all logs run on this well shall be submitted digitally (in PDF or TIFF format) to the Price Field Office.
- A complete set of angular deviation and directional surveys for a directional well will be submitted to the Price Field Office petroleum engineer within 30 days of completing the well.
- The venting or flaring of gas while initially testing the well shall be done in accordance with the requirements specified in Notice to Lessees #4A, and shall not exceed a period of 30 days or the production of 50 MMCF of gas, whichever occurs first. Additional time needed to vent or flare gas during production operations requires prior approval from the Price Field Office.
- Should this well be successfully completed as a producing well, the Price Field Office must be notified within 5 business days following the date the well has first sales.
- Proposed production operations that involve: 1) the commingling of production from wells located on-lease or off-lease, 2) off-lease measurement, or 3) off-lease storage shall have prior written approval from the Price Field Office.
- Operators shall meet the requirements listed in Onshore Order #4 Measurement of Oil and Onshore Order #5 Measurement of Gas. New oil and gas meters shall be calibrated prior to initial product sales. The operator (or its contractors) is responsible for providing the date and time of the initial meter calibration (and all future meter proving schedules) to the petroleum engineering technician. Copies of all meter calibration reports that are performed shall be submitted to the Price Field Office upon request.
- In accordance with 43 CFR 3162.4-3, this well's production data shall be reported on the "Monthly Report of Operations" starting with the month in which drilling operations commence and continue each month until the well is plugged and abandoned.
- The operator is responsible for submitting the information required in 43 CFR 3162.4-1 Well Records and Reports, including BLM Form 3160-4, Well Completion and Recompletion Report and Log which must be submitted to the Price Field Office within 30 days of completing the well.

### **STANDARD OPERATING REQUIREMENTS (cont.)**

- Onshore Order #7 authorizes the disposal of water produced from a well in the reserve pit for a period of 90 days after the date of initial production. A permanent disposal method must be submitted and approved by this office, and in operation prior to the end of this 90-day period.
- The requirements of Onshore Order #3 Site Security shall be implemented, and include (as applicable): 1) all lines entering and leaving hydrocarbon storage tanks shall be effectively sealed and seal records maintained, 2) no by-passes are allowed to be constructed around gas meters, 3) a site facility diagram shall be submitted to the Price Field Office within 60 days following construction of the facilities.
- Additional construction that is proposed, or the proposed alteration of existing facilities (including roads, gathering lines, batteries, etc.), which will result in the disturbance of new ground, requires prior approval of the Price Field Office natural resource specialist.
- This well and its associated facilities shall have identifying signs on location in accordance with 43 CFR 3162.6 requirements.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the Price Field Office natural resource specialist.
- The Price Field Office petroleum engineer shall be notified 24 hours in advance of the plugging of the well (unless the plugging is to take place immediately upon receipt of oral approval), so that a technician may have sufficient time to schedule and witness the plugging operations.
- If operations are to be suspended on a well for more than 30 days, prior approval of the Price Field Office shall be obtained, and notification also given before operations resume.

### **SURFACE USE CONDITIONS OF APPROVAL**

#### **I Site Specific Conditions of Approval**

1. An annual springtime ground-based survey for raptor nests would be required if the well and other future wells are to be produced.
2. In the event fossils are unearthed in the course of excavation by the operator, or any person working on his behalf on public land will be immediately reported to the Price BLM Office. The Price BLM Field Office will instruct the contractor as to the proper course of action.
3. The cuttings trench shall be lined.
4. The cuttings shall not be removed from the location without prior approval of the Authorized Officer.
5. Contact Anita Jones, Physical Scientist, (435) 636-3668 or Don Stephens, Natural Resource Specialist, (435) 636-3608, Bureau of Land Management, Price Field Office, if there are any questions concerning these surface use COAs.

## **BLM Developed Mitigation Measures**

### **1. Mitigation for Soils and Hydrologic Conditions:**

- Complete repairs to the well pad access road in accordance with BLM Manual, Section 9113, (Roads) Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, Fourth Edition (USDI and USDA 2007);
- Ensure that surface disturbing activities are not conducted during periods of frozen or saturated soils when watershed damage or excessive rutting is likely to occur;
- Road repairs will include re-grading and outsloping the existing access road and creating/restoring rolling dips designed to ensure that runoff flows to and off the outer edge of the roadway;
- Surface disturbance and vehicular travel will be limited to the approved location access road;
- All existing roads will be maintained and kept in good repair during all phases of the project, and
- Vehicles will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Maximum design speed on the well access road will not exceed 25 miles per hour.

2. **Mitigation for BLM Sensitive Plant Species & San Rafael Cactus:** Use of a water truck to provide dust suppression along CR-401 while transporting the drill rig into the site from SR-10 will reduce or eliminate potential impacts to San Rafael cactus resulting from fugitive dust generation. Similarly, dust suppression along the eastern portion of CR-401 during transport of heavy equipment used to repair the well pad access road will minimize potential indirect impacts to psoralea globemallow.

3. **Mitigation for Weeds:** Prior to entering the site, equipment to be used for repairing the well pad access road will be cleaned of weed propagules by spraying with a high-pressure hose.

4. **Mitigation for Recreation (OHV Trail):** IACX will work with the BLM to reroute the trail as shown on Figure 5 of the EA. This will reduce the possibility of conflicts with operations on the well pad. The portion of the designated route on the fill slope will be compacted so the loose material is hardened to make it a safer recreation experience.

## **Applicant-committed Environmental Protection Measures**

1. Because the proposed well location is on the existing well pad for Woodside #1 (API# 43-015-30701) and utilizes the same access road, IACX proposes to adhere to the original terms and conditions for the Approved APD for Woodside #1 (API# 43-015-30701) (EA UT-070-2006-55).

2. All new and replacement internal combustion oil and gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of oxides of nitrogen (NO<sub>x</sub>) per horsepower-hour. This requirement does not apply to oil and gas field engines of less than or equal to 40 design-rated horsepower.

3. All new and replacement internal combustion oil and gas field engines of greater than 300 design-rated horsepower must not emit more than 1.0 gram of NO<sub>x</sub> per horsepower-hour.

## **II Standard Conditions of Approval**

### **A. General**

1. The operator shall contact the Price BLM Office at least forty-eight hours prior to the anticipated start of construction and/or any surface disturbing activities. The BLM may require and schedule a preconstruction conference with the operator prior to the operator commencing construction and/or surface disturbing activities. The operator and the operator's contractor, or agents involved with construction and/or any surface disturbing activities associated with the project, shall attend this conference to review the Conditions of Approval and plan of development. The operator's inspector will be designated at the pre-drill conference, and is to be given an approved copy of all maps, permits and conditions of approval before the start of construction. The BLM will also designate a representative for the project at the preconstruction conference.
2. The operator shall designate a representative(s) who shall have the authority to act upon and to implement instructions from the BLM. The operator's representative shall be available for communication with the BLM within a reasonable time when construction or other surface disturbing activities are underway.
3. If any cultural values [sites, artifacts, human remains] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Price Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
  - Whether the materials appear eligible for the National Register of Historic Places;
  - The mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary).
  - A time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
4. The operator shall restrict travel on unimproved roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4-inches, travel outside roadway, etc.).
5. The Companies will provide geo-referenced spatial data depicting as-built locations of all facilities, wells, roads, pipelines, power lines, and other related facilities to the BLM by November 1 of each year until completion of project construction activities has occurred.
6. If any dead or injured threatened, endangered, proposed, or candidate species is located during construction or operation, the BLM Price Field Office (435-636-3600) shall be notified within 24 hours.

### **B. Construction**

1. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized

to minimize erosion and stabilize disturbed soils.

2. Construction and surface disturbing activities will not be conducted during periods of frozen or saturated soils when watershed damage or excessive rutting is likely to occur.
3. Remove the top 6 inches of topsoil from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized in accordance with a BLM approved reclamation/revegetation plan.
4. Drill pads and facility sites are to be designed to prevent overland flow of water from entering or leaving the site. Storm water collected on disturbed sites will be prevented from flowing off the site and the pad is to be sloped to provide for zero runoff. The drill pad shall be designed to disperse diverted overland flow and to regulate flow velocity so as to prevent or minimize erosion. Well pad diversion outlets shall be equipped with rock energy brakes and gravel-bedded dispersion fans.
5. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
6. Construct the backslope no steeper than 1½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
7. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
8. Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour and all access roads and well location speed limits will not exceed 15 miles per hour.
9. During construction, emissions of particulate matter from well pad and road construction will be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
10. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD.

### **C. Operations/Maintenance**

1. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels will be buried on location. IACX and its contractors will comply with all state and local laws and regulations pertaining to disposal of human and solid waste.
2. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
3. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads,

water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.

4. If this well is drilled during the fire season (June-October), the operator shall institute all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access route(s) and well location(s), keeping firefighting equipment readily available when drilling, etc.

#### **D. Roads**

1. The operator is responsible for repairs and maintenance of all roads authorized through the lease or right-of-way. Repairs and maintenance shall comply with Level 3 Road Standards as described in BLM Manual Section 9113, the BLM Gold Book standards, except as modified by BLM. Maintenance may include but is not limited to grading, applying gravel, snow removal, ditch cleaning, and headcut restoration/prevention.
2. Topsoil from access roads and pipelines are to be wind rowed along the uphill side of the road or stored in an approved manner. When the road is rehabilitated, this soil will then be used as a top coating for the seed bed.
3. The operator shall provide an inspector under the direction of a registered professional engineer (PE) at all times during road construction. A PE shall certify (statement with PE stamp) that the road was repaired to the required BLM road standards.
4. Repairs to existing erosion-control structures such as water bars, diversion channels, and terraces will divert water and reduce soil erosion on the disturbed area. Road ditch turnouts shall be equipped with energy dissipaters as needed to avoid erosion. Where roads interrupt overland sheet-flow and convert this runoff to channel flow, ditch turnouts shall reconvert channel flow to sheet flow. Rock energy dissipaters and gravel dispersion fans may be used, or any other design which would accomplish the desired reconversion of flow regime. As necessary cut banks, road drainages, and road crossings shall be armored or otherwise engineered to prevent headcutting.

#### **E. Dry Hole/Reclamation**

1. Interim reclamation will be initiated as soon as is practical after construction and drilling operations. Areas to be reclaimed include but are not limited to areas of the well pad no longer needed for Woodside Dome #2 drilling operation activities and not required for Woodside #1. Interim reclamation operations will follow BLM guidelines and only BLM approved seed mixes will be used.
2. Upon cessation of production of the project the Proponent will expediently reclaim and reseed that portion of the well pad not required for Woodside #1 to the approximate original contours of the land prior to drilling, in accordance with BLM guidelines and any pertinent COAs.
3. Disturbed lands will be re-contoured back to conform with original contours of the land. No depressions will be left that trap water or form ponds.
4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the areas to be reclaimed, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.



5. Distribute the topsoil evenly over the areas to be reclaimed. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour.
6. A reclamation plan will be submitted to BLM for approval prior to facility abandonment via a Notice of Intent (NOI) Sundry Notice and will include:
  - Configuration of reshaped topography, drainage systems, and other surface manipulations;
  - Waste disposal;
  - Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix;
  - Other practices that will be used to reclaim and stabilize areas to be reclaimed, such as water bars, erosion fabric, hydro-mulching, etc.;
  - An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses; and
  - Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the well.
7. BLM will not release the performance bond until all disturbed areas associated with the APD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
8. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
9. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
10. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
11. Any mulch utilized for reclamation needs to be certified weed-free.
12. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

| Slope<br>(percent) | Spacing<br>Interval<br>(feet) |
|--------------------|-------------------------------|
| ≤ 2                | 200                           |
| 2 – 4              | 100                           |
| 4 – 5              | 75                            |
| ≥ 5                | 50                            |

### **III Green River District Reclamation Guidelines**



SESE SEC 12 T19S R13E

**RE: Woodside Dome #2 APD** 43 015 30 766 LEASE # UT4 73059

Jeff Lee <jefflee@iacx.com>

Wed, Jun 25, 2014 at 8:55 AM

To: Bradley Hill <bradhill@utah.gov>, CarolDaniels@utah.gov

Cc: "Martin, Spencer" <Spencer.Martin@aecom.com>, John Thompson <john@walsheng.net>, RICHARD BEHRENDT <poppytank@msn.com>

Thank you Brad.

This is the revised drilling plan. We are planning to set the conductor pipe tomorrow.

**Jeff Lee**

Vice President, Projects and Construction

IACX Energy

5400 LBJ Freeway, Suite 1070

Dallas TX 75240

Direct: (972) 960-3219

**From:** Bradley Hill [mailto:bradhill@utah.gov]

**Sent:** Tuesday, June 24, 2014 5:13 PM

**To:** Jeff Lee

**Subject:** Re: Woodside Dome #2 APD

For our records would you please send in a Sundry Notice and attach the revised drilling plan. We will accept it for record. If you have approval from BLM for this change DOGM has no issue with the change.

Brad Hill P.G.

O & G Permitting Manager/Petroleum Geologist

State of Utah

Division of Oil, Gas, & Mining

Phone: (801)538-5315

Fax: (801)359-3940

email: bradhill@utah.gov

On Tue, Jun 24, 2014 at 1:03 PM, Jeff Lee <jefflee@iacx.com> wrote:

Brad,

IACX proposes to air drill this well and we cleared that with Leslie Peterson at BLM. I attached the revised drilling plan. Please let us know if you have any question.

We are currently planning to spud next week and we will provide the 24-hour notification prior to mobilization.

Thank you.

Jeff

**2 attachments**



**24-hr Pre Construction Notice and Air Drilling.pdf**  
72K



**WD #2 Drilling Plan updates 6-3-14.docx**  
41K